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VIDEOGAMING ILLUSTRATED

August 1982

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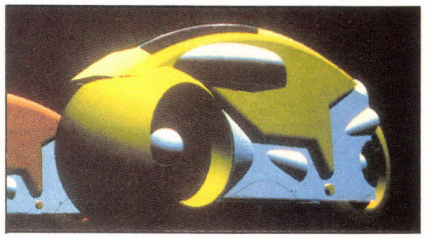

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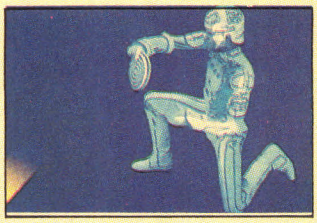
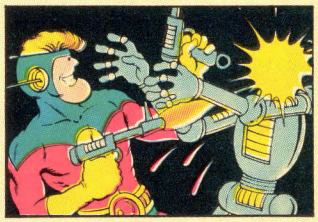
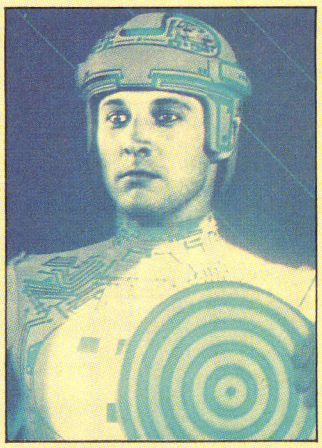
Bruce Boxleitner as Tron, hero of the new science fiction adventure film from Walt Disney Productions. This visually stunning motion picture is set in a computer world where videogames become a deadly reality, and the noble video warrior must fight constantly for his life. The embodiment of all that's good in computer technology, no other subject could have graced our first issue cover!

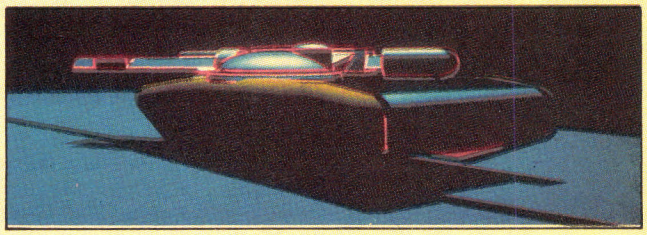
The keyboard







An editorial



There is a recurrent topic in this first edition of *Videogaming Illustrated,* one which will surface again and again in future issues. It's controversial because no one can agree on what it is. The topic is creativity. In terms of videogaming, one manufacturer will define creativity as the ability to devise a wholly original game concept. Another will back an opposite stand, explaining creativity as the ability to take a complex arcade game and state it faithfully on less sophisticated equipment of home videogaming. A third game-maker will characterize creativity as the talent to take licensed properties such as Smurfs or *Star Wars* and, without compromising those elements which constitute the properties' appeal, translate them successfully to the videogame medium. Still a fourth point-of-view is that creativity is the skill required to infuse a popular motif such as dotmunchers in a maze or space aliens with new twists, new rules, new life.

Each of these definitions is usually uttered to defend a manufacturer's particular policy. No definition is ever *intended* to discredit the others, yet each is invariably tendered with such conviction that the listener would appear rude to think otherwise. "We believe that what the other guys are doing is super," a reporter is inevitably assured, "however, here at so-and-so we've found that the *best* approach is...."

The best approach? Looking beyond the partisan rhetoric—without discounting any of it, merely consolidating—the best definition of creativity is input which, as output, delights a videogame player. It consists of varying blends of artistry, topicality, commercial savvy, mechanical skill, inspiration, objectivity, ingenuity, evaluation, re-evaluation, patience, and impatience. A game cannot possibly succeed without a little of all of these qualities. A popular genre or mega-dollar hype can get a game noticed, but only by fulfilling or transcending play expectations can a videogame *hold* the public fancy.

Creativity has few challenges greater than the videogame market. Its devotees are a difficult audience to please because they are so *anxious* to be pleased. They are bright, discriminating and future-oriented, excited by nothing more than a game which fascinates or even intimidates them: *their* challenge, and their pleasure, is to test designer creativity to the utmost. And unlike fans of fields ranging from coin collecting to moviegoing, videogamers are as curious about the trappings as the playing of their hobby, be it hardware which expands the parameters of play or the people who are *doing* this expanding.

All of which brings us to *Videogaming Illustrated.* It is our intent to explore both sides of the industry, the creative input as well as the entertainment output. Strategy sessions, news and photos of upcoming games, do-it-yourself projects, interviews, reviews, and columns of humor, commentary, and puzzles; these form the backbone of the magazine. But there's more. Being future-directed ourselves, we'll be looking at where videogames are headed in the near and far future, and how they're influencing other media, from books to film. Our writers and editors are no less passionate about the field than our readers and, having come from magazines as demanding as *Omni* and *Playboy,* you can depend upon their ability to *communicate* this passion. And, no less important, to listen to your feedback.

Write to us! Share your thoughts about the field, about your favorite games, about aspects of videogaming which puzzle or intrigue you. We'll print what we can, pass all others to every member of our editorial staff and, where appropriate, forward your letters to personnel at the videogame companies themselves. Send us your playing tips as well: a few issues down the road, we'll be initiating *Championship Videogamers*, a column of reader strategies for home and arcade videogames.

Videogaming is young and vital, its future fraught with promise. We're as thrilled as you to be a part of it, and hope you'll find *Videogaming Illustrated* a stimulating companion for that exciting and important journey.

Jeff Rovin
Editor-in-Chief

eye on

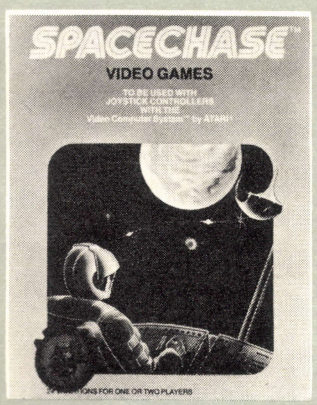
WHAT'S NEW IN HARDWARE, SOFTWARE, THE INDUSTRY!

APOLLO, LIKE ITS NAMESAKE, SHOOTS FOR THE VIDEOGAMING STARS!

Despite the downbeat reviews Apollo garnered for *Skeet Shoot*, its first videogame, no one's going to nap through four cartridges the company recently put on the market. Indeed, like Shakespeare, author of the world's best literature, and who, by the way, was castigated as an "upstart crow" after his own first work was performed—Apollo intends to create classics. Lively, unique, fraught with color and exotica, the newest of the Atari-compatible games suggest that the Texas-based manufacturer is well on its way.

Apollo is a subsidiary of National Career Consultants, a company founded by entrepreneur Patrick Roper. For eleven years NCC has successfully produced and distributed educational and career guidance films to high schools and colleges. Unfortunately, government belt-tightening has limited the funds available to many of NCC's customers and, early last year, NCC had no choice but to cut back on their film operation and branch into other fields. Initially, the firm considered distributing dramatic works on videocassette, but discovered that the major studios and producers of popular entertainment were already committed to other manufacturers. As for creating their own feature-length motion pictures, the high cost of such an undertaking was prohibitive. However, NCC was not unaware of the booming videogame industry; the decision to diversify in that direction was reached in October of 1981, after market research and the obvious growth of the field indicated that there was room for a newcomer.

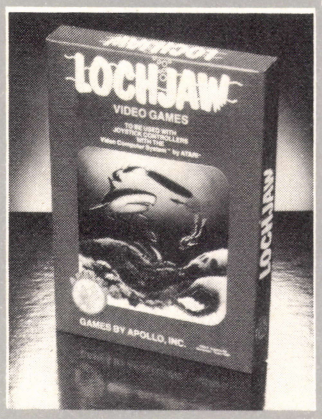
Roper decided to concentrate solely on software, adding a computer programmer to the existing staff of NCC and rushing the company's first game to the market by December of last year. "All in all, *Skeet Shoot* wasn't a spectacular game to start off with," concedes Emmitt Crawford, Apollo's director of public relations. He acknowledges that the graphics were flat, little more than a box flinging pellets at a small saucer. To make matters worse, a high percentage of the cartridges had to be recalled due to image roll. But *Skeet Shoot* managed to cash in on the lucrative Christmas buying season and, more important, made dealers and consumers alike aware of the new company.



One month after the inauspicious debut of *Skeet Shoot*, the company released the better-conceived, more topical *Spacechase*. This time, both the graphics and subject were worth writing home about. As commander of three Mark 16 starcruisers, the player is required to beat back alien raiders who, materializing from hyperspace, mercilessly fire neutron missiles and heat-seeking proton missiles as they attack from all sides. With its scrolling planet surface and fast-paced action, *Spacechase* was an immediate hit. Crawford says it's presently back-ordered to the tune of nearly 200,000 cartridges "and," he marvels, "even *Skeet Shoot* is still hanging in there," with several thousand orders waiting to be filled as Apollo's production schedule allows.

Today, Apollo has a staff of five programmers plus thirty production people to handle cartridge assembly. To ensure continued prosperity, Apollo has endowed the four new games with an individualistic blend of mystery, fantasy, and even humor, traits which are helping them to secure a following in the marketplace. They plan to release a new game every four to six weeks.

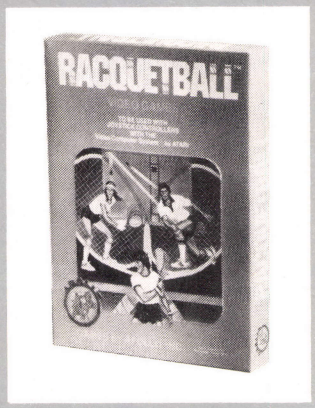
Space Cavern is the trendiest of the games, the saga of an astronaut on a mission to a mysterious planet in a remote quadrant of the galaxy. The pioneer's assignment is to chart a maze-like cave inhabited by a monstrous hydra whose tentacles generate twenty million electron volts. Irridescent eyes appear throughout the game, but the player can never tell until seconds before contact which pair of eyes will materialize into the deadly monster. The space explorer is armed with a pistol which can shoot horizontally and vertically, affording full protection from two aerial nasties and one ground-based creature. A particularly impressive touch is the way the astronaut's skeleton lights up whenever the monster strikes, after which the explorer demolecularizes, ending the game as a pile of dust.



Lochjaw is a slightly more out-of-the-ordinary game, as players send their divers to a Spanish galleon which lies at the bottom of a seabed. As the waters ripple around them, colors trickling through, the divers must enter a yawning hole in the ship and recover a fortune in diamonds, one gem at a time. This is accomplished by navigating through a maze—the one tired motif in this excellent game—where in due course the diver is assaulted by a pair of sharks as well as a saurian relative of the beast from Loch Ness. The sharks travel at random, one considerably faster than the other, while the sea serpent has the capacity to home in on and pursue the diver. To thwart the animals, the diver can have at them with a shark gun or crawl into a shark cage. There is also a cave which acts like a dimensional warp, enabling divers to escape any pre-

dator. However, like the hyperspace mode in *Asteroids* or *Astrosmash*, there is no way of knowing exactly *where* the cave will hurl you. Chances are good that it will bear you from one danger quite literally into the jaws of another.

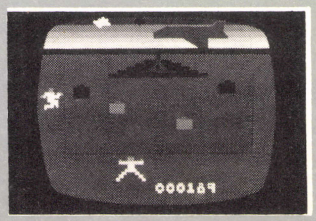
Unquestionably the most charming of Apollo's new games is *Lost Luggage*. It would not be inaccurate to dub this the first "comedy cartridge": the player is at an airport as the suitcases arrive via conveyor belt. Suddenly, the luggage flies from the carousel and the player must catch it. Miss the suitcase and it opens, spilling all manner of personal effects over the ground.

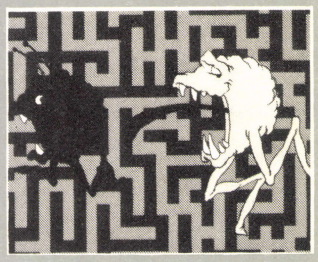


Last of the current Apollo releases is *Racquetball*, a faithful recreation of the indoor sport seen from the players' point of view rather than the sidelines.

Apollo maintains that these games barely hint at the novel cartridges and accoutrements soon to appear. Roper informed this magazine that six additional cartridges will be released by December. "No licenses," he reports, "all our own ideas," and Apollo has already made available the first *personalized* cartridge. For $99.95, you can have *Space Chase* programmed so that your initials will flash on the screen when the mother ship is destroyed. It's ideal for businesses, which Crawford indicates have been their biggest client, using the electronically embossed games as premiums. Apollo also expects to release software for Intellivision consoles by mid-1983, and may yet enter the videocassette field using the medium for educational purposes. "We've even briefly considered using videocassettes to offer strategies for our games," Crawford notes. Preparing games for computers is another of Apollo's short-range objectives, though they have no plans to enter the arcade field.

The people at Apollo realize they've got to burn the midnight oil if they're going to compete with the giants like Atari and Coleco. Crawford admits the battle will be a rough one, but feels up to the challenge. "We're in good shape because we got in ahead of a number of companies. Even though they're conglomerates and pretty stiff competition creatively, we think there's ample room for everybody. Besides," he observes, "what you need in this business is more than a big budget. You have to have games that people want, and we think we've got just that."





K.C.K.O.

Atari and Midway Manufacturing Co. have landed what sadly appears to be a knockout blow to Odyssey²'s delightful *K.C. Munchkin* home videogame. In short, snap up those cartridges, video buffs, for a Federal appeals court has ordered the stalwart muncher off the market. The panel of judges overturned a U.S. district court which had ruled that contractor Ed Averett's brainchild was *not* an infringement of *Pac-Man*, the phenomenally popular Midway arcade attraction and Atari home game. In the district court decision, Judge Leighton had found that *K.C. Munchkin* endows its central character with personality and employs different sounds and playing strategies. The court also determined that the Odyssey² munchers were "spookier," with longer legs and different colors than the *Pac-Man* "goblins." Judge Leighton added that the defendant's advertising and packaging could not "reasonably result in confusion" between the games.

The Federal appeals court did not agree with Judge Leighton. Their debatable edict: Odyssey² "not only adopted the same basic characters but also portrayed them in a manner which made *K.C. Munchkin* substantially similar to *Pac-Man*." As a result, Odyssey² is allowed to sell cartridges which are still in the stores, but is enjoined from filling new orders. Though attorneys for the beleaguered gobbler plan to carry their battle to the Supreme Court, it is a process which can drag on for a year or more. Whether *K.C. Munchkin* could recover after such an absence is questionable: even if muncher-mania is still in flower, the market will have been glutted by the Pac-Man family of games, not to mention Astrovision's *Munchie*, *Munchman* from Texas Instruments, and others.

Atari was less successful beating back Amusement World's *Meteors* game, which was alleged to have been ripped off from *Asteroids*. In the opinion of Judge Young, who presided over this U.S. district court case, while there are "a number of similarities in the design features of the two games . . . the court finds that most of these similarities are inevitable, given the requirements of the idea of a game involving a spaceship and combatting space rocks." He added that while Amusement World obviously *based* their game on *Asteroids*, copyright protection extends only to the *expression* of ideas, not to the ideas themselves. The decision is being appealed by Atari.

Atari has boasted of a "warchest" to protect their games from infringement; Midway's attorneys likewise intend to chase down every lookalike. The outcomes are sure to vary, but one thing is certain: there will be as many fireworks behind the scenes as in the games themselves!

MORE PAC-MANIA

Pac-Man has conquered the arcades, home video market, book bestseller lists, and top-40 record charts. Now, Louis Scheimer, president of Filmation Associates, has announced that his company recently obtained from Midway Manufacturing Co. the rights to the billion-dollar gobbler for a Saturday morning cartoon series. Scheimer, whose studio put Fat Albert on the air and has also produced animated versions of the Lone Ranger and Zorro, admits that he has no idea what to do with *Pac-Man*. "What we bought was a name," he told *Videogaming Illustrated*. "Now we need a concept." He confided that he was leaning toward a chase-theme, such as the one used in Filmation's popular Tom and Jerry cartoons.

Before *Pac-Man* can reach the air, it remains for one of the three networks to buy the series.

. . . AND IN CASE YOU DIDN'T KNOW

Three of the seven staff workers at Atari polled by this magazine did not know what the "Pac" in *Pac-Man* stood for. We let them in on this well-kept non-secret, and now share the information with you: the name comes from the Japanese word *paku*, which means "to eat." *Pac-Man* was, of course, invented in Japan, inspired by a figure from folklore who was never able to satisfy its appetite. What each of the Atari personnel *did* know was that the *Pac-Man* home videogame is going to rake in roughly a quarter-billion dollars in profit.

The Intellivoice voice synthesis module attaches to Intellivision producing male and female narration.

YOU DON'T SAY!

That's right: *You* don't say a thing. Henceforth, it will be your videogame that does all the talking. Intellivision and Odyssey² have just released sound modules, with both Atari and Astrovision planning similar units in the near future.

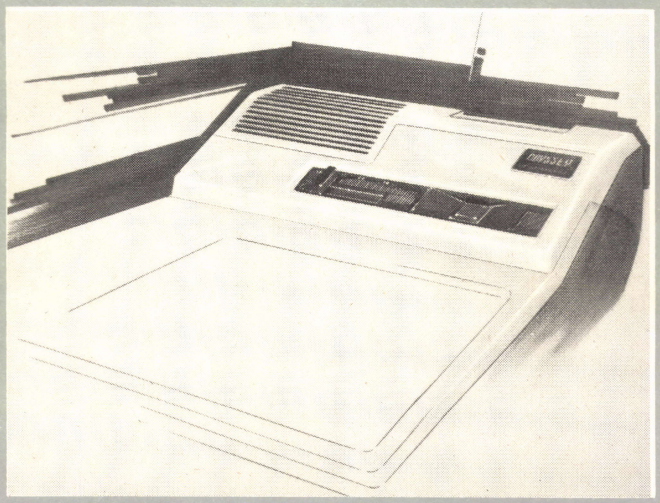
Intellivision's "Intellivoice" Voice Synthesis Module, which retails for $80.00, plugs into the master component and is used with special cartridges that produce realistic male and female voices. These are not merely prerecorded human voices: They are generated during the game by the computer, high quality human voice with expression. Sometimes the speakers are calm, at other times excited—but they always react instantly to game situations.

The first voice cartridges being introduced by Intellivision are *Space Spartans*, *B-17 Bomber*, and *Bomb Squad*. In *Space Spartans*, you're the pilot of a starship in uncharted galaxies . . . galaxies which harbor warmongering empires. Hostile fleets surface every now and then, and you must hold them off for as long as possible. Throughout the battle you'll hear expressions such as, "Computer reporting shields one-third down," and the like.

B-17 Bomber puts you in the cockpit of the Flying Fortress, the famous World War II fighting plane. Your mission is to navigate to a preselected site—be it a ship asea or an airfield deep inside enemy territory—bomb the target, then return safely to your point of origin. Along the way you must shoot down enemy planes and avoid flak, which can damage your B-17 and make it more difficult to handle. The Intellivoice acts as your copilot, alerting you to impending danger.

In *Bomb Squad*, you've a limited amount of time to disarm a bomb that threatens lives and property. You must break a numerical code, which has been programmed by terrorists, before you can defuse the bomb. Throughout the disarming process, a calm and reassuring voice makes suggestions and advises you to remain at ease.

Like the Intellivoice unit, which plugs into the cartridge slot of the master component—the games slipping directly into the voice synthesizer—the Odyssey² sound module attaches directly to the computer mainframe. The difference between the units is that Odyssey² will audibly reproduce *anything* the user types on the alphanumeric keyboard. Unlike Intellivision, Odyssey² will be using the voice capability primarily to enhance educational cartridges, though the action games "will be a part of it," according to Ed Williams, the company's director of publicity. The Odyssey² sound module will retail for $100.00.

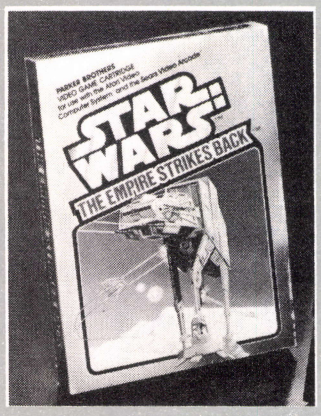


The Odyssey² voice synthesizer may give you a long "i" instead of a short one, but it's a dandy unit.

eye on

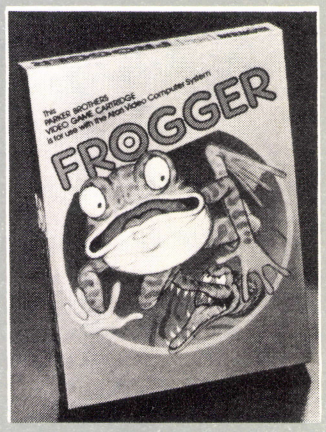
THE FORCE IS WITH THEM

Parker Brothers, one of the world's largest toy and game manufacturers, has entered the videogame market not with quantity but with phenomenal clout, having acquired five licenses which should make the company's games among the hottest of this year and the next.



In July, Parker Brothers will release the first of its *Star Wars* Atari-compatible videogames. Based on a sequence from *The Empire Strikes Back*, it pits a compact Rebel Snow Speeder against a marauding Imperial Walker, action set on the ice planet Hoth. The player must score forty-eight hits against the Walker to destroy it; the Speeder can fire forward or backward as it circles the mechanical juggernaut. A light flashes on the Walker signifying moments when its energy is low and the moving fortress is especially vulnerable. For its part, the Walker fires bombs at the Snow Speeder, as well as heat-seeking missiles which buzz for a time around your troublesome craft. If the Walker reaches the Rebel base (the end of the screen) or if a player loses all the Snow Speeders, the game is over. If the player wins, he or she is rewarded by invincibility through the Force—as well as two electronic refrains of the *Star Wars* theme.

One month after the release of *Star Wars: The Empire Strikes Back*, Parker Brothers will ship *Frogger*, a *Freeway*-like challenge based on the Sega arcade game. The lower half of the screen consists of a highway which the frog must cross without being hit by cars or trucks; the top half of the screen is a river, the frog proceeding across the water by stepping on drifting logs or turtles, all the while evading crocodiles. The game ends when the frog is safe in one of the niches at the top of the screen.

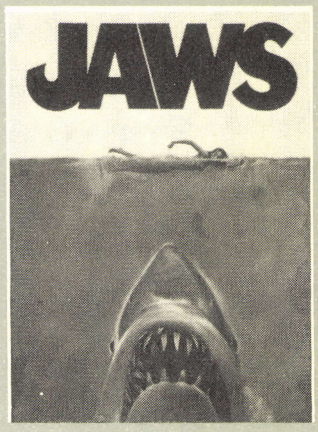


January of 1983 will see the arrival of the company's third game, *Spiderman*. Though gameplay has not yet been fully evolved, the player will be responsible for climbing walls, spinning webs, and catching villains, just as the character in the popular Marvel comic book. Next on Parker Brothers' list will be *James Bond: 007*, a game also very early in the development stage but which will most likely send players on an espionage mission armed with gadgets that the secret agent has used in his many films. Parker Brothers' current thinking is to use a situation from one of the most popular Bond films, probably *Goldfinger*. Just in time for the '83 summer season will be a cartridge so powerful it may well escape before the company can release it: *Jaws*. All that has been established for this game is that it will be up to videogamers to avoid being eaten by the Great White Shark. Finally, July will also see the debut of *Revenge of the Jedi*, the second *Star Wars* cartridge, this one based on presently top-secret themes from that science fantasy film.

Even if you've quit the secret service, you can stay in condition by videogaming.

With the videogame market crowding almost daily, why did Parker Brothers decide to shoulder the enormous gearing-up costs necessary to try and capture a share of the market? "We've been watching the field since the mid-1970s," Director of Marketing Richard Stearns informed us, "and it's impossible to ignore the success of home videogames. Nor is it so far afield for us as it might seem. We're fairly prominent in the hand-held electronic game field—our Merlin was the number one game in the toy industry for two years in a row. Also, it's important to remember that we're first and foremost a game company. To us, video is just another medium." Nonetheless, recognizing that they were wading into heavily populated waters, Parker Brothers decided that going with "famous faces" was the best way to go. "Licensing is a factor which sets you apart to begin with," Stearns notes. "It gets you recognition in the consumer's mind, and if you can back that edge with very good gameplay you're on your way."

Though Stearns says Atari has "been silent" about having yet another company producing software for their consoles—bringing the total to six—he feels that his company will actually help to sell more Atari hardware. "As long as there are good titles available for that system, it's going to be the one people continue to buy." He admits that Parker Brothers *had* gone to Intellivision in 1981, offering to make cartridges to complement their system in exchange for technical



Continued on page 60

ODYSSEY²

MASTER STRATEGY SERIES!

A cross between videogame and boardgame, the Master Strategy series has found favor among videogamers. More importantly, it's bringing converts to the field.

The first master strategy game went on sale early in 1981, a handsome, oversized package nestled prominently among the videogames. Buffered by a strong promotional effort from Odyssey², *Quest for the Rings* was an immediate bestseller in spite of its $49.95 price tag. "We were amazed by the number of people who actually came into stores and requested the game," recalls Gerald A. Michaelson, Marketing Vice President. "It's been backordered since that first delivery."

Quest for the Rings is a sprawling adventure in which the player must find the ten supernatural Rings of Power, artifacts hidden by the evil Ringmaster somewhere within the twenty-three castles that pepper the gameboard map of the Dark Lands—alongside dungeons, crystal caverns, volcanic pits, and various corridors. Either a player or the computer limns the role of Ringmaster. Battling the sands of time, the other players are Wizards, Warriors, Phantoms, or Chameleons armed with one or more spells or weapons, using these to wage war against Dragons, Doom-winged Bloodthirsts, Orcs, Fire-wraths, and the nefarious Spydroth Tyrantulus. The confrontations themselves are actually fought in the videogame portion of the game. These themes and set-pieces were inspired by the writings of J.R.R. Tolkien, whose epic trilogy *Lord of the Rings* is a favorite of *Quest for the Rings* creator Steven Lehner.

Fans of* Dungeons and Dragons-*type role playing games describe* Quest for the Rings *as the most involving of all the fantasy videogames.

Master Strategy designer Steve Lehner starts each game with a concept, then builds his world, characters, and object piece by painstaking piece.

"No one buys chess or Monopoly because they're fans of war or finance games, but because those games are challenging and multi-dimensional."

When the scope of the game's success became evident, the company conducted surveys among consumers to see what had attracted them to *Quest for the Rings*. Surprisingly, only a small percentage of the buyers were drawn to the fantasy motif. The bulk of the audience was attracted by the game's format, a fact which didn't surprise Lehner in the least. "That's exactly what I was trying to do when I conceived the Master Strategy series. No one buys chess or Monopoly because they're fans of war or finance games per se, but because those games are challenging, fun, and multi-dimensional." These qualities, he submits, allow Master Strategy to transcend the genre in which each game is cast.

Michaelson likens Master Strategy games to classical records, which can be listened to for hours, their nuances noted and appreciated, as opposed to hit records which are over in minutes. Lehner likes the metaphor. "You can play a videogame like *Space Battle* or *Space Invaders*, or a tank or sea battle for a time," he elaborates, "but after a while you get tired of shooting at things. Master Strategy doesn't let you settle into a routine, the games don't lose their appeal once you've gotten a handle on a few key maneuvers." The reason for this depth and versatility is Odyssey²'s alphanumeric keyboard. Previously, the keyboard hadn't even flexed its muscles, limited to selecting game programs and identifying the number of players. In some games, like *UFO*, it allowed players to type their names on-screen, a minor-league achievement. Master Strategy allows the keyboard much fuller rein. Events described by the gameboard are fed into the computer and the action played out on the screen—serving up a new result that is noted on the gameboard; this, in turn, is entered into the computer. Lehner describes this computer-gameboard relationship as "the loop, a miniaturized real world situation which could never be duplicated with a videogame alone, and would bury you with countless decks of cards and dice to play without a computer."

Board game and videogame: an Odyssey exclusive!

Teamed with programmer Ed Averett and artist Ron Bradford, Lehner—who also writes all the Odyssey² instruction booklets—followed *Quest for the Rings* with *Conquest of the World* and *The Great Wall Street Fortune Hunt*, both of which matched the success of the first game. *Conquest of the World* features a gameboard map of the world, the player trying to occupy as many nations as possible through combat, treaty, and alliance. All wars are fought on the videogame portion of the game. Lehner saw to it that each nation in the game was endowed with Power Base Units—military, industrial, and economic strength—proportionate to the realities of the 1980s. *The Great Wall Street Fortune Hunt* is no less topical. The player's goal is to make more money than any opponent by buying and investing in various markets. The videogame cartridges give you 'up-to-the-minute' quotations (fictional, of course, but credible) which reveal the price of gold, stocks, options, treasury bills, real estate, and so forth; this data alternates with news events from around the world, factors which influence prices. The gameboard is used to track the prime rate and time frames, and to analyze your holdings in any of thirty real corporations before entering buy-sell decisions into the computer, and an Investment Record notebook enables you to keep track of shares, margins, options, profits, and net worth.

CORPORATE STRATEGY

The long-awaited Odyssey³ is coming in mid-1983!

In April, North American Philips hosted a party to introduce the press to *The Great Wall Street Fortune Hunt*. The gathering was held on the 106th floor of the towering World Trade Center in Manhattan, not far from Wall Street. Also at that bash, Odyssey's parent company unveiled a new non-Master Strategy game *Pick Axe Pete*, which will be released this month, in which an intrepid miner must hammer away at tumbling chunks of gold while ascending to the top of the Misty Mountain Mine.

During the press conference, Odyssey executives announced that it was the intention of North American Philips to make Odyssey a brand known worldwide, no less formidable than the corporation's Philco, Sylvania, and Magnavox divisions. Five tacks were cited to achieve this goal:

1. The distribution of Odyssey² games will be expanded to include record stores, drug stores, food chains, and the like.
2. The voice and sound module will be heavily promoted. In stores, the unit will be programmed to say to passing customers, "Excuse me, please take me home with you."
3. Advertising will be increased to boost consumer awareness of Odyssey², vis-a-vis the widespread awareness of Atari and Intellivision.
4. Games will be designed with an emphasis on fun.
5. Finally, Odyssey³, with its much-improved graphics capability, would be readied for release in mid-1983. An adaptor would allow Odyssey² owners to use their present cartridges in this machine. *Videogaming Illustrated* has learned that the first Master Strategy game planned for this new Odyssey unit will be an entire football season, with multiple teams and players whose abilities can be programmed and careers guided through trades.

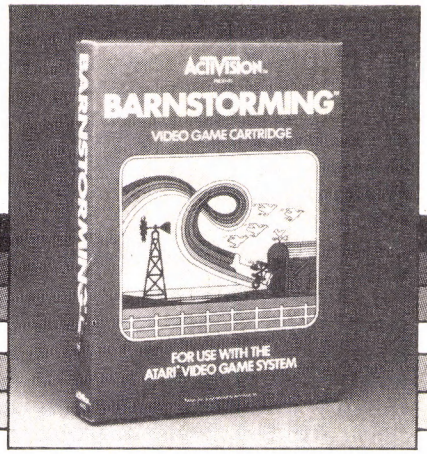
Remarkably, Odyssey² did no market testing to see if these titles or the game concept itself had any appeal. As Michaelson puts it, "They were the first three ideas Steve had, and we felt they sounded right. So we went ahead and just plowed into the unknown." The only homework the company did involved focus groups, held before each game went into full production. These groups of six to eight people were handed a set of instructions and the game itself, their reactions closely observed. If a rule was found to be unclear or a play situation illogical, Lehner and his team corrected it.

The Master Strategy games rank among Odyssey²'s topselling titles but, more importantly, they are drawing new business to the videogame field. Holdouts who resent the way that "traditional" boardgames are being supplanted by computer technology—even Monopoly has 'gone electronic' at Parker Brothers—are buying Odyssey² keyboards because of Master Strategy and discovering that videogames aren't so bad after all. Michaelson reports, "They enjoy the interaction you have when a half-dozen people are playing one of the games. I've done it with age groups that spanned forty years from the youngest to the oldest. The opportunity to participate at a moment, back off, watch somebody else play, then react again yourself makes for an entirely different kind of experience than a one or two player videogame." Michaelson adds that this in no way makes one format 'better' than another. As Lehner puts it, "Master Strategy is simply a different branch in the evolution of games." Neither sees Master Strategy replacing pure videogaming, merely expanding the audience to include that hitherto untapped market which desires meatier, family-oriented gameplay.

The Great Wall Street Fortune Hunt, ***a game calling for all the quick-thinking of playing the market, without real losses.***

Next up in the Master Strategy series is the fall release of a detective game. Like the perennial favorite *Clue*, players must solve thefts and murders. Unlike *Clue*, the game is set in the late 19th century London of Sherlock Holmes and, boasts Lehner, "has every bit of deductive and logic process that we can build into it using the Odyssey² keyboard. There are scraps of information hidden all over the place; we're making it quite a treat for the clue-hunting audience fond of Holmes or Agatha Christie." Further down the line, Lehner is planning sports games which would utilize "incredible new hardware" to make the games more lifelike than any comparable cartridges.

The Master Strategy games have come far in just over a year, and several other software manufacturers are considering similar packages. Lehner himself believes that there are many avenues yet to explore with his brainchild, not only in terms of subject matter but in gameplay itself. Eventually, he would enjoy building series of games around central themes, complete with thick guidebooks which would serve as player atlases to each group of interrelated games. This would permit him to "miniaturize in vivid detail" entire worlds and civilizations, an ability hitherto limited to novelists and designers of *Dungeons and Dragons* type role-playing games. "The wonderful thing about computer games is that there's no limit to what they can do," Lehner declares. He adds, "The wonderful thing about the Master Strategy series is that we're actually *exploring* those limits."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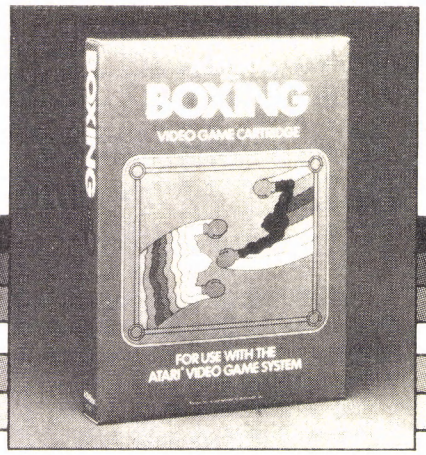
BOXING
VIDEO GAME CARTRIDGE
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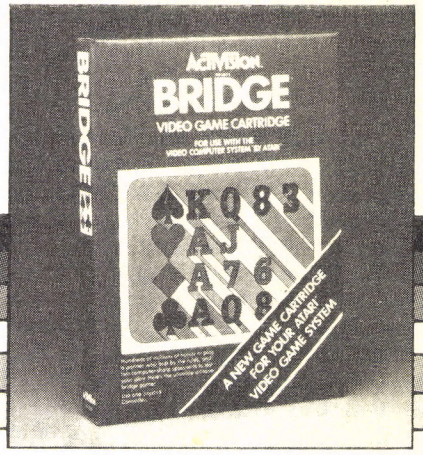
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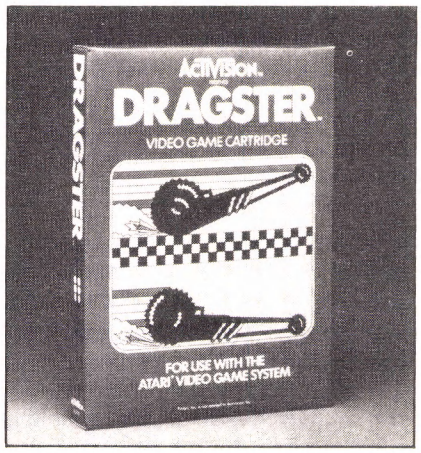
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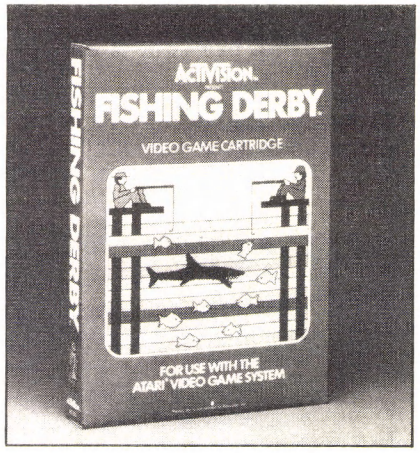
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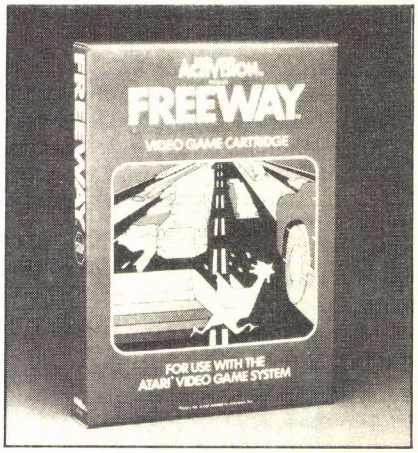
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VIDEO GAME CARTRIDGE
FOR USE WITH THE
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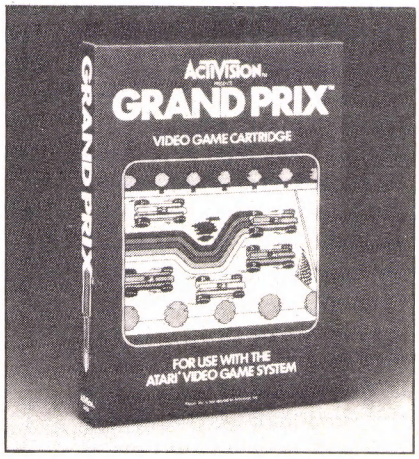
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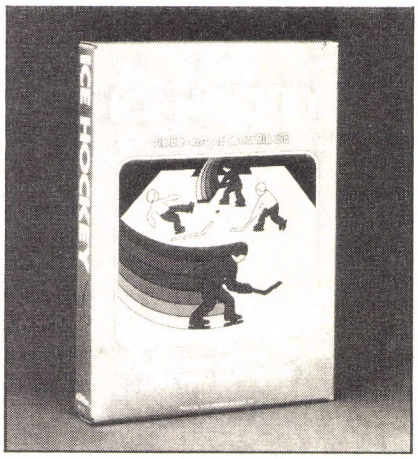
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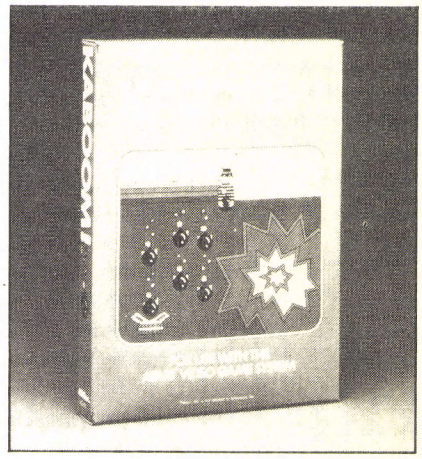
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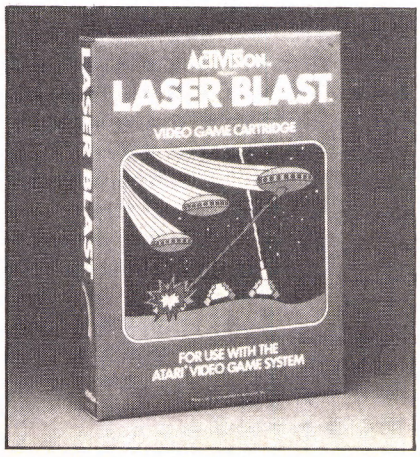
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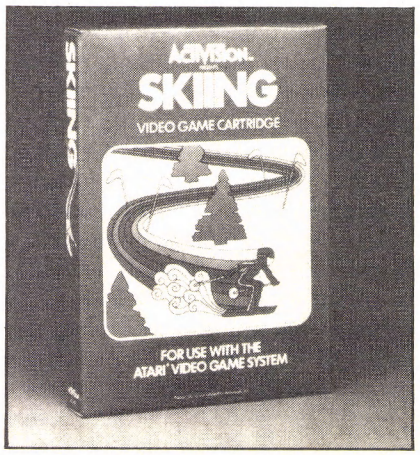
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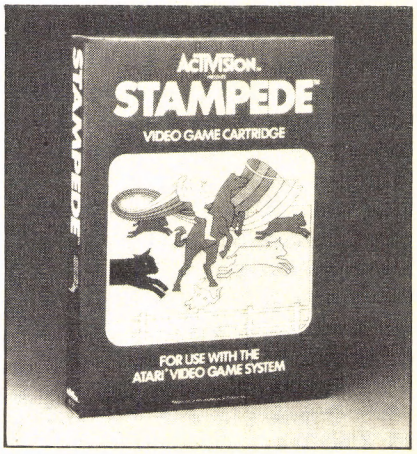
ACTIVISION
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VIDEO GAME CARTRIDGE
FOR USE WITH THE
ATARI VIDEO GAME SYSTEM

VIDEOGAMING ILLUSTRATED PROFILE

ACTIVISION PRESIDENT JIM LEVY

PHOTO BY VICTORIA ROUSE

Activision was formed on October 1, 1979, created to produce cartridges for the home videogame market. It was the first company to manufacture just software for this field, paving the way for the subsequent debut of games-only firms like Apollo and Imagic.

Less than two years after its founding, Activision is generating revenues in excess of $50 million annually. Industry analysts attribute the company's unparalleled success to its brilliantly conceived and executed games—as anyone who has ever played *Kaboom!*, *Dragster*, *Barnstorming*, *Stampede*, *Fishing Derby*, et al., will attest—and to the leadership of its president, Jim Levy.

A man of diverse experience, Levy has worked for Time, Inc., Hershey Foods, and GRT Music among others. He is an expert in product marketing and corporate management, and is considered by many to be the industry's canniest entrepreneur. He is nothing if not articulate, forthright, and visionary as *Videogaming Illustrated* discovered in this exclusive interview.

Q: What is the source of your own interest in this field?

A: I feel that the personal computer is as fundamental a revolution in the way we entertain ourselves, live our lives, and educate ourselves, as television or any other development we have witnessed in this century, and therefore in all of history. Activision was formed because there was a group of us from the creative and the business standpoint that thought there would be extraordinary opportunities to lead the industry both emotionally and creatively, and to make sure that *where* computers go over the next decade or two becomes a positive force for good.

Q: Activision has shunned licenses in producing its games. Is it a company policy to generate all of your own themes and programs?

A: Licensing is obviously easier, but it's also much more temporal. If you don't have a strong creative center to an organization such as Activision, eventually you're going to fall behind. Historically, if you look at the motion picture industry or the record industry, the successful motivators of change, both creatively and from a business standpoint, are those who have crossed new ground, have pushed back the limits of the art form. That doesn't come from copying something that's been done somewhere else, it comes from original thought and expression and research. Copying something that has been done, even from another medium, is sort of a quick and dirty way to immediate sales and profits. It's also a one-at-a-time situation: What happens if, next year, there is no *Pac-Man*, there is no *Asteroids*, there is no *Space Invaders*. What happens to the companies which rely on those as being the source of their product? Besides, from Activision's standpoint the creative approach is not only fundamental to the long-term development of the organization, but it's also a lot more fun. You're dealing with new ideas all the time, tinkering and experimenting. Life is full of surprises!

Q: Have there been ideas which Activision has found impossible to conquer, even *with* its obvious pool of talent?

A: That always happens. But what appears, initially, to be difficult to make work, eventually comes around and does work. *Grand Prix*, which we released in March, was developed over a year ago. But David (Crane) put it on the shelf and came back to it. You can't say of any particular concept that we have not completed and released that it may not come back around, a solution found to whatever problems plague it during the design.

Q: Would you ever feel compelled to contrive and rush out a cartridge just because a genre happens to be hot at a given time?

A: We don't go for genres. To tell you the truth, we don't go for *anything* except ideas. When the ideas are fleshed out, they're either a great game or not a great game. As for genres, they always end up being defined after-the-fact anyway. There was no such thing as the 'cartoon game' before *Freeway* and *Kaboom!* came out. Then, all of a sudden there was this genre!

Q: Your creative people have wrung, from the Atari console, the kinds of detail and personality that other software manufacturers have rarely been able to equal. What's the secret?

A: If you talk to any artist, you'll be told that it's very difficult to separate inspiration from perspiration. Inspiration is obviously important; if you don't have a great concept, it doesn't go on to become a game. But to get from the inspiration to the final product is a very difficult, hard, grinding process for the individual designer. It can be grueling—six to eight weeks of fourteen hour days. There's plenty of interplay between our team of designers, but what I'm talking about is that process of realization which follows inspiration: the physical work, dedication, determination, and discipline to reproduce the vision in the videogame. That may *sound* trite, but application is the only way to achieve the kind of result

you described.

Q: Activision was the first company to recognize game designers by crediting them in the game package. What inspired you to do this?

A: A sense of justice. You would not think of starting a publishing company without putting the authors' names on the books they've written, nor would you think of putting out a recording by an artist without giving them proper credit. I wouldn't think of putting out a videogame, which is a piece of creative work—"an artistic" work which comes out of the blood, sweat, and talent of an individual— and not give that person appropriate credit. I think that's wrong.

Q: What you've said is reasonable, of course, yet for years this has *not* been standard practice in the industry. Why is that?

A: Other people don't see things the way we do. There's a distinct difference between the Activision point of view and the point of view of many people in this industry. Most other people see this as a business, whereas we see it is an art form with a business attached. The business is, in fact, constructed to package and distribute the art form from the artist to the recipient. That's all the business is, a pipeline.

Q: Are you breeding superstars? Will the talent behind these games begin demanding the kind of salaries which abound in sports and film?

A: These people *are* superstars, and they're very well rewarded. They sign autographs if they're walking through an arcade and get a *lot* of fan mail, eight to ten thousand letters a week between them. I don't think they're of the order of magnitude of the Personality Cult, the rock star or the athlete where beyond the work itself you have the charisma to become a star. People who perform in public tend to end up in that situation. That's not necessarily true of authors, nor is it true in the case of painters or sculptors or game designers.

Q: Are the designers and executives at videogame companies fiercely competitive behind-the-scenes, or do they privately acknowledge the good work that is done by someone else in the field?

A: There's still a lot of emotion in the business. It's very young and growing very rapidly; there are very hungry people who've come into it. I would like to see more rational dialogue among the business people because there are some common problems that we all face—particularly in matters of copyright and counterfeit. Also, I spent six years in the recording business. Though there's an enormous amount of rivalry between record people, there's also a great deal of mutual respect. I don't see any reason why that shouldn't exist here. We're not like the detergent industry, trying to distinguish one product from the other. A great piece of creative work is great no matter where it comes from; if one of our competitors does good work, I think you'll find us the first to compliment them.

Q: You mentioned the problem of copyrights. Do you have a reaction to the feud between *Pac-Man* and K.C. Munchkin? [*Ed. note: See this issue's* Eye On . . . *for story.*]

A: I've no particular reaction other than that there are legitimate issues here. The question of copyright in the videogame area needs a combination of both judicial and legislative attention. Part of what's going on in the *Pac-Man/K.C. Munchkin* dispute is an attempt to define rules. Nobody's quite sure where the boundaries are. Is the concept of the maze game with little gremlins running around it protectable, or is it the final realization of its physical form as *Pac-Man* that is protectable? The answer, from a copyright standpoint, is that it's the final form. But if you get too close to that boundary between concept and final form, a judge is going to say, 'This is just a knock-off and all you did was change a few colors.'

Q: Do *you* feel that *K.C. Munchkin is* a ripoff of *Pac-Man*?

A: I'm not going to comment on the case myself. I've seen both games, of course, but I'm not a judge, and though I understand the law in principle I'm not going to try to prejudice the situation one way or the other.

Q: Do you consider Atari a 'bully' for trying to protect its territory?

A: You've got to keep in mind that Atari *built* this industry. Nolan Bushnell first and then the crew that followed have made it possible for us all to be where we are. *Everyone* in the business is going through the adjustment from infant to robust adolescence. The cartridge industry has gone past a billion dollars, and it will never again be what it was like two or three years ago. Even Activision, which is less than three years old, had to go through the change from being a little company in 800 square feet of space to a company about to move into 85,000 square feet of office space with a 93,000 square foot manufacturing facility. For its part, Atari has had to accept that there is going to be competition in the industry. If there's discord, I suspect it's because things change so rapidly that sometimes people react emotionally to change before they really sit down and think about what the long-term impact of it is.

Q: Since the industry *is* booming, its characters and themes are much in demand. Would Activision ever consider licensing its creations the way *Pac-Man* has been put on everything from notebooks to a board game?

A: Only if they work. The whole *Pac-Man* thing has probably gotten a little bit out-of-hand. Next we'll see *Pac-Man* facial tissue or *Pac-Man* ice cube trays, and that doesn't make much sense. My attitude would be to judge each work on its merits. If a board game is good, it would be good whether you called it *Pac-Man* or not. All *Pac-Man* becomes is a marketing handle. You won't find Activision willy-nilly licensing our properties just to extract the last piece of change out of them.

Q: What are Activision's plans for the future? You've hinted about redoing existing cartridges and developing new ones for Intellivision in 1983; what happens beyond that?

A: We're in an industry that's only four or five years old. Many years of growth and change both in the technology and the creative uses of it lie ahead. Voice synthesis, voice recognition where you can talk to the game, 3-D—all sorts of things are being developed conceptually, but probably won't be realized to their fullest extent for years to come. Our creative team was not designed to crank out a new game every few months, but explore the fringes of the technology to see where we can go if we want to. As a creative organization dedicated to leading the software revolution, we'll be dabbling in everything. That's why there isn't any place I'd rather be than in this industry, in this company, with this group of people.

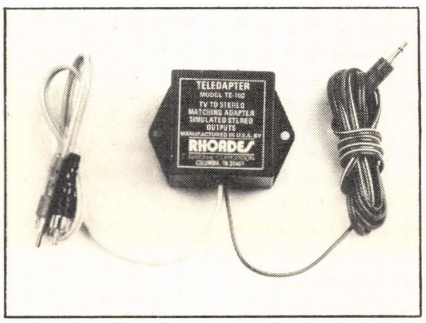
How to turn your videogame into a super gaming center!

Videogame manufacturers have been busy trying to out-do each other for years. One will emphasize a hot license, another pitches their realistic gameplay. Atari, Odyssey^2, and Coleco are striving to beat the graphic excellence of Intellivision; even Intellivision is looking to one-up itself with a new $700 Home Entertainment Computer. But subject matter, complexity of play, and true-to-life visuals are only a few of the factors which affect player enjoyment of videogames. They are the most *convenient* from the consumer's point-of-view: it's up to the manufacturer to build them right into the cartridge or console. As a result they are also extremely limited, nothing so flamboyant as to drive up the cost of the system. It is therefore up to the user to enrich videogaming with accoutrements which, when experienced in totality, will stagger the senses. Some of these embellishments can be made for a few dollars; others are considerably more expensive. Try one or try them all, they are guaranteed to transform your modest master component, homely and small, into the brain of an arcade unequalled for videogaming sights and sounds.

SuperSound

This issue's topic is enhancing the sound generated by your videogame. That does *not* mean just turning up the volume, mind you, but adding tone and dimension to the output itself. This is one of the least costly forms of videogaming enhancement, yet at the same time one which produces some of the most spectacular results.

The basic equipment you will need are an amplifier and two speakers, plus an inexpensive TV-to-stereo adapter. There are a number of manufacturers who produce such units, but *Videogaming Illustrated* recommends any of the three *Teledapters* made by Rhoades National. The model TE-100 makes the connection for under $20, while for twice the price the TE-200 gives you some measure of control over the level and tone of the output. Both plug directly from the earphone jack of the TV to the "phono left-right" jacks of your amplifier. And what do you do if your TV *hasn't* an earphone jack? No problem. The *Teledapters* are made to alligator-clip right onto the speaker terminals of the television. If, however, you're not electronically gifted, or are simply disinclined to remove the back of your TV, Rhoades offers a third alternative: the brand new TE-150X *Teledapter.* Priced at less than $30, this device is positioned directly in front of your TV speaker and transmits the sound to your stereo amplifier.



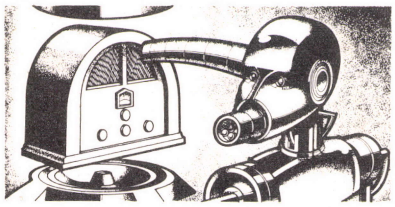
An inexpensive unit like this can make gamesounds more exciting.

All of these units contain matrix circuitry, which allows them to produce two channels of sound—in other words, simulated stereo. The first two units will, incidentally, *shut* the TV speaker, though the television volume will continue to control what is fed through the *Teledapter.*

If two sound sources fail to satisfy you, almost all amplifiers permit for the hookup of another pair of speakers. Even cheap speakers, used to accent the main output, can flavor the sound enormously. There is, of course, no need to stop with the four speaker combination. With the addition of one other piece of equipment, you can add a minimum of two more speakers.

There is, in the back of your amplifier, a pair of jacks marked "tape out," one jack for each speaker. For approximately $100, you can fill these openings with a connection leading to TeleSound's *TeleStereo*, or any similar unit. This is a two-speaker device which, in plugging into the

The Past Is The FUTURE



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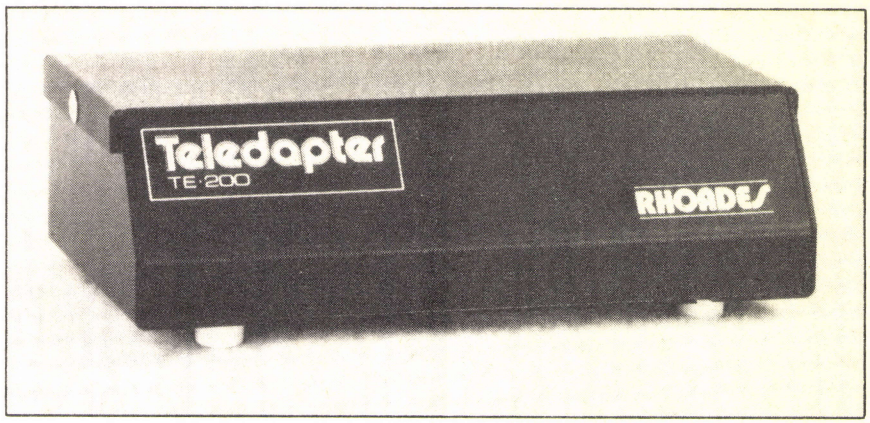


More costly than its companion, this* Teledapter *allows the videogamer greater control over the tone and pitch of videogame sound effects.

amplifier, does *not* automatically block the other sound sources. Thus, you end up with a total of six speakers. Running the *TeleStereo* to yet *another* amplifier/speakers setup can boost that sum to ten.

TeleStereo has one other advantage. If you like, you can plug it through the *Teledapter* directly into your TV earphone jack, doing away with the amplifier and its speakers altogether. The sound will not be as fullbodied, owing to the small size of the *TeleStereo* speakers, but it may be just enough for you. *Or*, you can wire your amplifier (at its "phono left-right" jacks) to the *TeleStereo*, hooking it to the free jack beside the *Teledapter* link. The sound feed will thus come through the *TeleStereo* to the amplifier rather than vice versa. The simulated stereo is sacrificed, but the sound from your stereo speakers will be considerably more crisp. Try them both and suit your own taste. The one breathtaking advantage of the amplifier hookup is if your equipment has a booster for low and high frequencies. Throw the switch to "on": the bass roar of the game will literally cause the windows to rattle! One asset to *either* system is that if your TV *hasn't* an earphone jack, you can plug phones into the *TeleStereo* or amplifier and play videogames as loud as you want even if the rest of the household has gone to bed. Furthermore, wearing phones during the space conflict videogames in particular adds enormously to the ambiance of the contests.

For those of you who prefer to watch rather than play with your TV, these connections also work for off-the-air or videocassette/videodisc viewing.

The *TeleStereo* unit has one other extraordinary virtue for the more flamboyant videogamers. Run the *Teledapter* from the TV to the *TeleStereo* mono input. Hook your stereo turntable to the amplifier. Plug your earphones into the *TeleStereo*: you can now listen to the videogame sounds *and* the music being piped into the phones, one layered atop the other. A drama created by having these sounds come from one source, as opposed to TV and stereo system independently, must be heard to be appreciated. *Asteroids* tends to play with much more self-importance accompanied by the music from *Star Wars*; *Pac-Man* is just a little nuttier supported by *The Minute Waltz*.

Sadly, there is no way to improve the basic gamesounds in the cartridges themselves. You *can* rig an external component to the joystick or paddle to create extravagant "firing" sounds; we'll be exploring this in a future column about dressing up the controls. Game impulses can also be used to trigger other sound and special effects, which will likewise be examined at a later date. For now, you'll have to content yourself with the raising to symphonic grandeur the electronic sounds the programmers have given us.

In our next installment of *Supergaming*, we will take a look at what you can do to make the videogame image itself far, far more imposing. Until then, we welcome your thoughts on the present column, as well as tips you'd care to share with the editors and fellow videogamers on how you turn *your* videogame into a Supergaming Center!

Researched by Samuel Lawrence, *written by* Michael Alexander.

COLECO

climbing toward video supremacy

PHOTO BY DOUG BAIRD © 1982

Fifty years ago, Coleco Industries was the Connecticut Leather Company—whence the name Coleco—a distributor of shoe repair supplies. Today, Coleco is a leisure-time corporation with annual sales totaling $178 million, a firm which manufactures everything from portable *Pac-Man* to *Dukes of Hazzard* power cycles to Mr. Turtle pools. Coleco is also a company which has recently begun producing videogames, a line-up which may well establish the Hartford-based supplier as the one to beat.

The growth of Coleco is the archetypical American Success Story. Shortly after it was founded by Russian immigrant Maurice Greenberg, the company branched from heels, laces, and shoe polish into rubber boots, helping New Englanders to cope with their severe winters. The company remained in footwear for a decade, until Maurice's son Leonard convinced his father to use their existing stock of leather to expand into leather-craft. The wallet-making and keycase stitching kits designed by the younger Greenberg did so well that licenses were quickly obtained for Mickey Mouse

Problems beyond Coleco's control crippled one of their pioneer efforts.

PHOTO BY DOUG BAIRD © 1982

Moccasin kits, Howdy Doody Bee-Nee kits, and the like.

Coleco grew steadily until 1956, when Leonard bought a small vacuum forming machine and used it to produce an eclectic line of toys. The plastic farm animals, army mess kits, and futuristic space helmets were all quite popular, but when Coleco turned to plastic sporting equipment such as pools, sandboxes, sleds, and toboggans, the company's fortunes skyrocketed. These outdoor products remain a bedrock of the company, abetted by the ever-in-demand "ride-ons," those low-slung plastic three wheelers kids use to tear up the asphalt.

Arnold Greenberg joined the family business in 1966, leaving a successful law practice to contribute much-needed in-house legal and administrative skills to the booming company. Under his direction the corporation went public in 1971. Five years later, Coleco entered the video field with Telstar, a Pong game which sold nearly one million units that year.

"It was really a natural extension for us," Arnold Greenberg told *Videogaming Illustrated*. "We were making pinball machines and air hockey for the home, lower priced versions of arcade games, the coin-op hits. Suddenly, in the early 1970s, we

PHOTO BY DOUG BAIRD © 1982

The arrival of state-of-the-art ColecoVision has stirred more excitement in the industry than any event in years.

found electronics in the arcades. We thought that what we saw was pretty clever, like Pong, and decided to figure out how we could do that so it would sell for $50 retail." At the same time, Coleco was unwittingly laying the groundwork for its current electronics operation: none of the staff working on Coleco's existing electric and electromechanical games like *Electric Football* had experience in the computer field, so new personnel had to be brought in. When Telstar was eventually discontinued, that staff was turned loose on new projects.

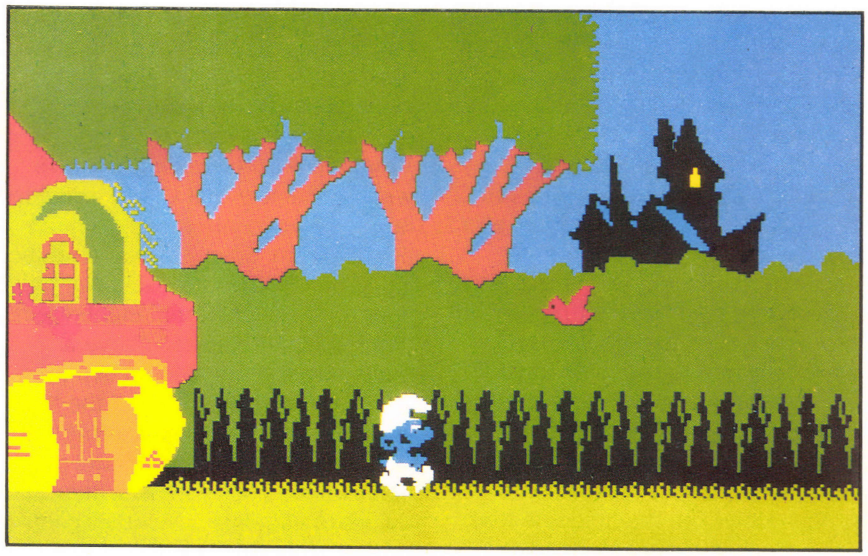
Hand-held, microprocessor-based games joined the Coleco line in 1979, highlighted by topselling *Electronic Quarterback* and *Head to Head*, and Coleco continues to prosper in this field. At the present time, production can barely keep up with consumer demand for portable versions of those arcade legends *Pac-Man*, *Donkey Kong*, and *Galaxian*. In fact, during January Coleco was forced to pull all their *Pac-Man* television from the New York area because, even with 100,000 games rolling off the production line—a figure which has more than doubled since then—they couldn't fill orders fast enough. Doubtless after next month's release of *Omega Race*, *Berzerk*, and *Frogger* history will repeat itself.

Given their long-time dominance in outdoor recreation, Coleco has always been anxious to make greater inroads on a market that was less seasonal, less dependent upon regional snowfall or sunshine. Capitalizing on their table-top electronics, Coleco committed $1.5 million into the starting of a videogame division. They did so not without reservations. Telstar had perished when a dock strike and production problems caused the company to miss the 1977 Christmas season. They were forced to liquidate the Telstar inventory way below cost, a financial blow which was nearly fatal, losing the company $27 million that year. However, the table-top games allowed Coleco to refine its engineering techniques, and the singular shipping problem which hamstrung Telstar could not affect the videogame setup.

Coleco has not made what anyone would describe as a low-profile move into the field. Not only is the company releasing twenty-three new videogame cartridges, they've created their own master console dubbed ColecoVision (which retails for $160 as opposed to $130 for Atari and $230 for Intellivision), with a remarkable three-in-one control (joystick, knob and keypad). Nor has the company shied from producing hardware to interface with the master component: They've developed a conversion module which allows

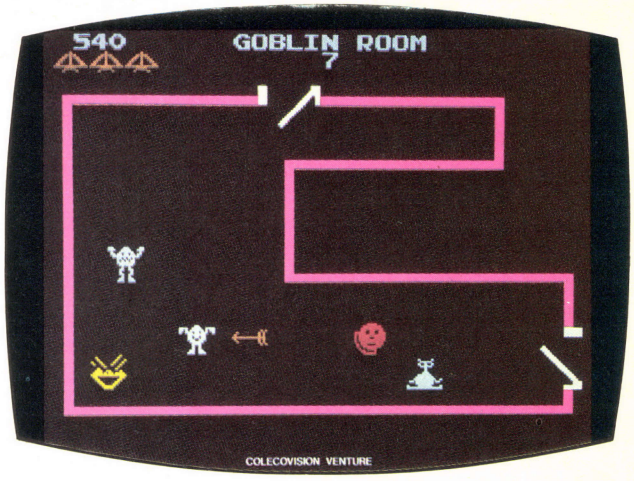
PERIPHERAL VISION

THE SMURF WARS!



Of all the licenses Coleco has landed, none may prove more valuable than the Smurfs. Arcade licenses will attract arcade players to Coleco cartridges, and provide proven quality where gameplay is concerned. But the Smurfs are going to appeal to young and old alike who may not be videogame fanatics. For those consumers who already own a videogame system, Coleco has the Atari- and Intellivision-compatible editions of their two Smurf cartridges. But what Arnold Greenberg hopes is that Smurf-happy newcomers to videogaming will go for ColecoVision and its superior animation cartridge. That hope of selling consoles as well as cartridges was behind his thinking when he went after the property for videogaming. Nor was he lacking firsthand knowledge about the Smurf phenomenon: Coleco has other Smurf products which are selling so fast they seem to bypass the stores on their way from factory to child. As one Coleco employee puts it, "I don't know why we bothered to put wheels on our Smurf ride-ons, train, and doll carriages. Those things *fly* off the shelves."

Coleco is not alone when it comes to cashing-in on these little blue folk who stand three apples tall: Wallace Beerie and Company, which agreed to represent the Smurfs in 1979 when the European critturs came stateside, will have put over a half-million Smurf-generated dollars in the bank by the end of this year. They should have no problem surpassing that sum next year: The astonishing popularity of the NBC Saturday morning Smurf cartoon series, and the continued success of the Pierre "Peyo" Culliford children's books which introduced the Smurfs in 1958, suggest that we're witnessing the birth of a media staple on par with the likes of Mickey Mouse and the Peanuts troupe. If this is so, 1982 may well be the year that the magical Papa Smurf, Grouchy Smurf, the evil Gargamel, Smurfette, and their kin took on *Pac-Man*, *Asteroids*, and the entire Atari line to give Coleco a shot at the videogaming crown.



A pair of arcade games come to the home, thanks to Coleco. The screen pictured for* MouseTrap *(left) is for the Atari-compatible cartridge. The screen for* Venture *is from ColecoVision.

their console to accept all Atari, Activision, and Apollo cartridges, and next year will unveil a module to convert ColecoVision into a personal computer.

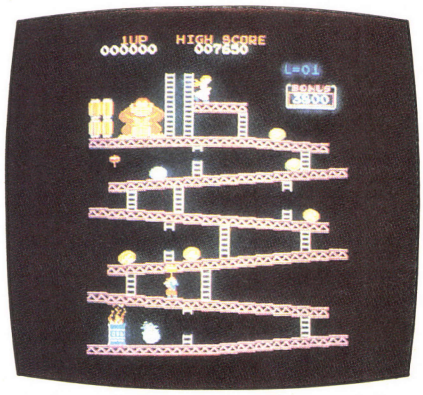
Arnold Greenberg feels that this all-out effort is the only way for Coleco to go if they are to meet their goal, which is to make ColecoVision *et sequens* the best and topselling videogame system of the 1980s. To this end, Coleco has created a most impressive lineup of software. A balanced blend of science fiction, fantasy, action, and sport, their list also features some of the choicest licenses in the field. The company was able to land these extremely hot properties even though licensors were reluctant to sign with anyone but current industry leaders Atari and Intellivision. This is understandable, since most contracts call for licensors to share in the licensee's profits. However, the holdouts were swayed when Coleco decided to make cartridges not only for ColecoVision, but less sophisticated versions for Atari and Intellivision as well. As a result, in addition to the twenty-three ColecoVision games, ten titles are being made available for Intellivision owners, eight for Atari. Of course, another consideration which works solely against Atari in this licensing process is that they make arcade games as well as home games. Understandably, many of their competitors in the arcade field do not want to fatten Atari's coffers with profits from their own licenses.

Personally, Greenberg believes that the overriding factor which won Coleco so many licenses is the fact that ColecoVision doesn't "betray" those elements which made the games popular in arcades in the first place.

"Manufacturers of coin-op games have reputations to look after, and they want their names attached to the best product possible."

Accordingly, he feels that in addition to the fine graphics of his system, licensors also saw that they could preserve the quality of *gameplay* in the versatility of ColecoVision's controls. Greenberg states with confidence that Coleco provides more precise control over game action than any other system—and the equipment speaks for itself. Not only does the joystick permit eight-direction movement nestled above a multi-purpose keypad and two independent action buttons, but the "roller controller" gives players the opportunity to change speed and position simultaneous with the other activities of gameplay. No other control system puts all of that capability in one unit.

(About the only bet Coleco missed was pressure-sensitivity as in "Le Stick," which will be discussed next issue.)

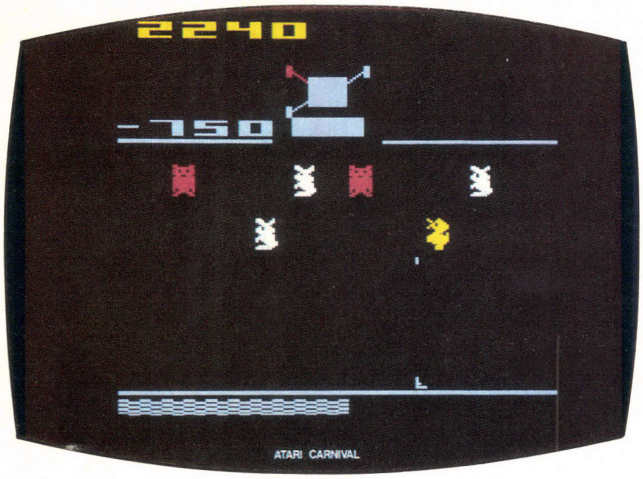


With an impressive fidelity,* Donkey Kong *comes to home videogaming.

The most visible license is *Donkey Kong*, which is packaged along with the ColecoVision console—a sales-inducing cartridge superior to *Combat* and *Las Vegas Poker and Blackjack* which come with the Atari and Intellivision sets, respectively. An extremely faithful home screen translation of Nintendo's arcade smash, the *Donkey Kong* scenario features an ape who captures a carpenter's girlfriend and carries her to the top of a steel fortress. The carpenter must walk, run, climb ladders, and most importantly dodge barrels chucked by the ape as he races to the top of the edifice to rescue his inamorata. *Donkey Kong* is also available in Atari and Intellivision versions.

The other Coleco licenses are no less exciting than *Donkey Kong*, all of them bound to please even the most discriminating arcade-goers.

Coleco has all but raided the best of what Exidy has to offer: *Mouse Trap*, *Side Trak*, *Venture*, *Rip Cord*, and *Spectar*. *Mouse Trap* allows the player to guide a nimble rodent through the halls of a house, gobbling down bits of cheese and trying to avoid a hungry cat. If the mouse is unable to keep ahead of the pursuing puss, there is a secret tunnel which provides sanctuary. The player also has the option of making a dog bark to temporarily frighten the kitty. *Side Trak* is similar in that you're chased around a maze while trying to retrieve objects. In this case you're a train engineer rushing to pick up passengers as you travel around a tangle of tracks—hunted,



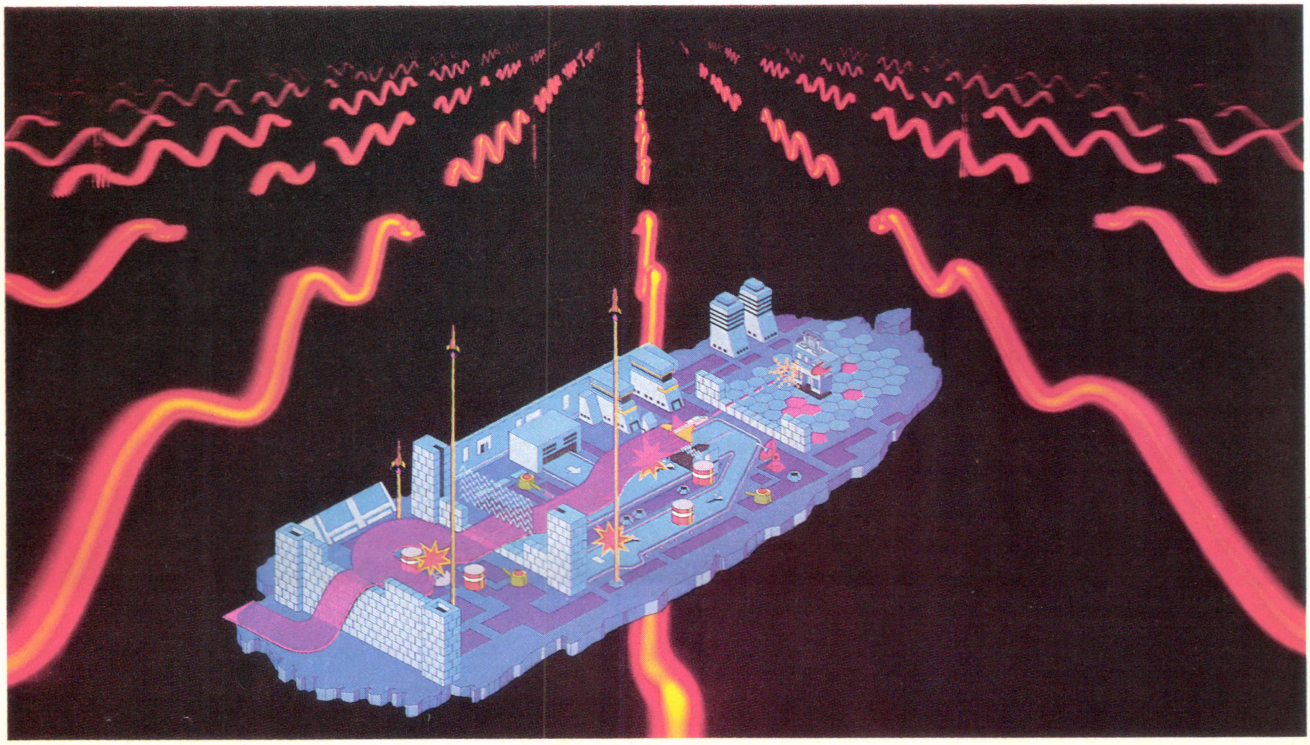
Coleco's target-shoot game* Carnival *(left) is pictured in its Atari version. The dressy screen beside it is the home version of the arcade hit* LadyBug*, shown in ColecoVision format.

all the while, by a killer locomotive. Though reminiscent of *Pac-Man*, the arcade version of this game in fact preceded the august maze-runner by two years. *Venture* is a series of games within one game, as the player goes from chamber to chamber trying to claim treasures, each guarded by a monster which must be slain. The player can stop at any point—though, as the game title implies, nothing ventured is nothing gained. *Rip Cord* likewise allows a gamer to play it safe or go for all the marbles. An airplane flies across the screen at different heights, and at some point you must bail out. There is no wind factor as in Atari's *Sky Diver*, but there *are* helicopters which putter in and out and demolish the chutist upon impact. If you find your stomach turning nervously to cork, you can always end the jump early by landing on a cliff or a building; obviously, the closer you come to the ground the more points you score. Finally, there is Exidy's *Spectar*, based upon that company's *Targ*. The challenge is to travel through a maze while blasting various impasses; clear the screen and, unlike *Targ*, a new one appears, with a fresh layout and different cul-de-sacs.

Lady Bug and *Cosmic Avenger* are based upon the Universal arcade games. Similar to the Exidy maze games, *Lady Bug* requires the player to direct the insect around a torturous circuit, eating up dots as she goes, making certain not to consume poisonous capsules which litter the route, nor fall prey to one of the evil bugs which give chase. The only means of escape from the predators are revolving doors strategically situated about the maze. (The location of the doors differs from that of the arcade version, because, explains designer Tom Helmer of Coleco, "the

Continued on page 51

The incredible space obstacle course called* Zaxxon*, pictured in all its glory! Pictured are challenges from the arcade and home versions, including the jagged laser barrier and homing missiles.



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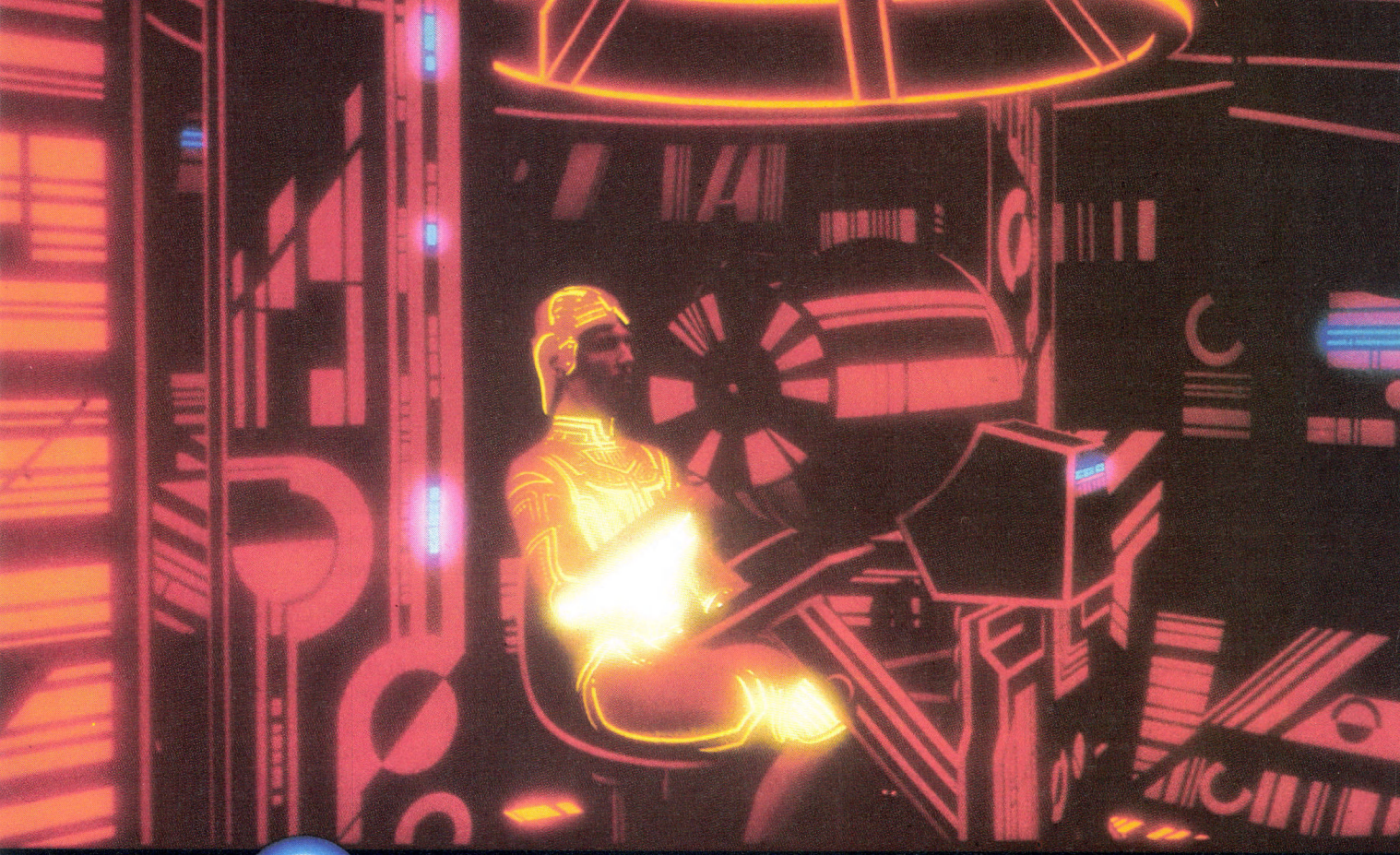


TRON

By Jeff Rovin

The most innovative motion picture in years takes viewers on an incredible journey inside *a videogame!*

Three years ago, Walt Disney Productions flung twenty million dollars worth of sludge on the screen and called it a science fiction film. *The Black Hole* deserved the critical and commercial ignominy which followed, but the film's failure did more than merely embarrass the studio. It catapulted Walt Disney Productions into the dark ages, a bleak period in which film after film has died at the box office, from the good (*Night Crossing*) to the bad (*Condorman*) to the ugly (*Dragonslayer*). Losing streaks are not uncommon in Hollywood; when an overhyped movie is horrendously bad, quite some time must pass before an audience will give the filmmakers a second chance. In the case of Walt Disney Productions, negative reaction to their product has been amplified by the public's inordinately high expectations from the studio: They look forward to motion pictures like *Fantasia* and *Twenty Thousand Leagues Under the Sea*, films that exude the spirit of imagination and quality with which the name Walt Disney has always been synonymous.

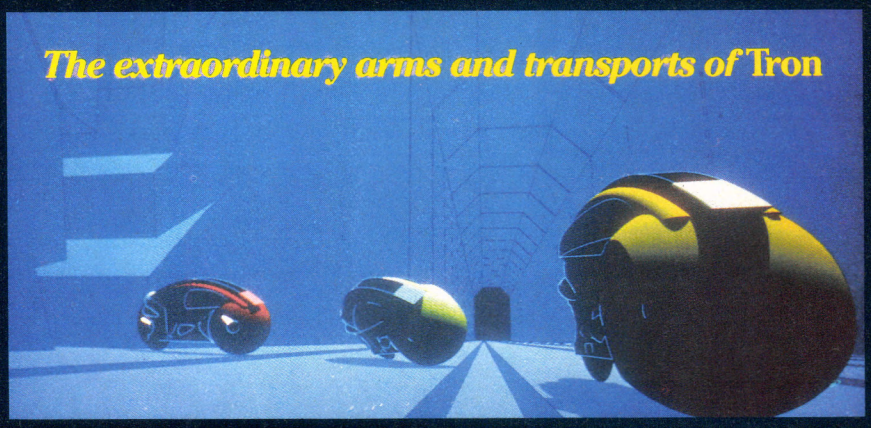
Fortunately for the studio, the renaissance may well be at hand. And all because of videogames. Walt Disney Productions has once again poured twenty million dollars into a science fiction film, only this one is no cosmic buzzard. It's called *Tron* and, as director Steven Lisberger describes it, "Everyone's looking for new fantasies in the movies. Outer space has been done to death, they've gone inside the body and under the sea. What we've done in *Tron* is take videogames and blow them out to the point where they are a reality." Though *Tron* will cause scientific cognoscenti to shudder as the laws of physics are trampled and filibustered in the name of drama, the film is so innovative, it's characters endearing and the con-

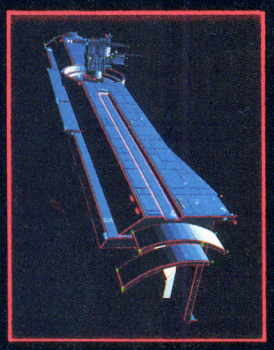
flict so involving that the rest of the moviegoing public will be delighted and dazzled by this breathtaking adventure.

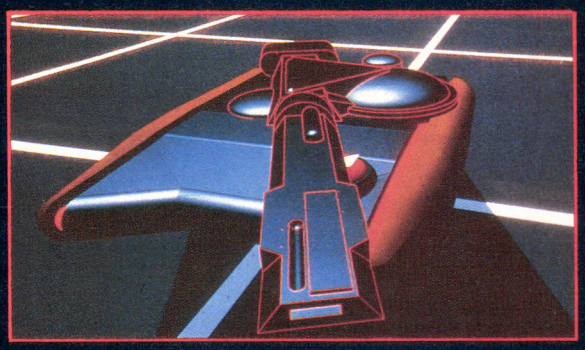
Tron starts in the real world. A young computer genius named Flynn (Jeff Bridges) is trying to break into the computer system at ENCOM, a huge communications conglomerate. A former employee of ENCOM, and now the owner and resident champion of a videogame arcade, Flynn is searching for proof that videogame programs he wrote were stolen by an unscrupulous executive named Dillinger (David Warner). Not that the videogame programs are Dillinger's primary concern. His company has an insatiable appetite for classified information, and has been patching into computer systems outside ENCOM—for instance, those of the Pentagon—a fact which Flynn is sure to uncover while searching for incriminating evidence of the videogame theft. Having anticipated that an upstart like Flynn would one day go prowling among the computer banks, Dillinger equipped the Master Control Program (MCP) at ENCOM to handle just such emergencies. It monitors Flynn's intrusion and shuts down all access to the computer system. The MCP's action not only locks out Flynn, but causes several other ENCOM employees to lose contact with *their* programs. Gibbs (Barnard Hughes) and his assistant Lora (Cindy Morgan) can't continue working on a security program code-named "Tron."

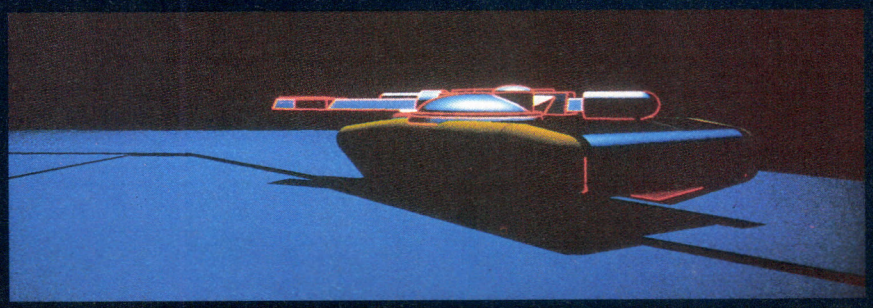
Lora and Alan Bradley (Bruce Boxleitner) reason that Flynn is responsible for the shutdown. Flynn doesn't deny that he tried to get into the computer and reveals his suspicions about Dillinger. The young man's ex-coworkers have harbored similar fears, and help him break into ENCOM to continue searching for evidence at one of the company's unguarded terminals. But before Flynn can incapacitate the MCP, the program positions a laser which blasts him into electronic particles. Flynn awakens in an electronic world where energy lives and breathes as alter-egos of the programmers who created them; a world under the tyranical dominance of the MCP and its murderous henchman Sark (Warner). Flynn is captured and sentenced to the videogame grid, where the fanciful dan-

***The extraordinary arms and transports of* Tron**

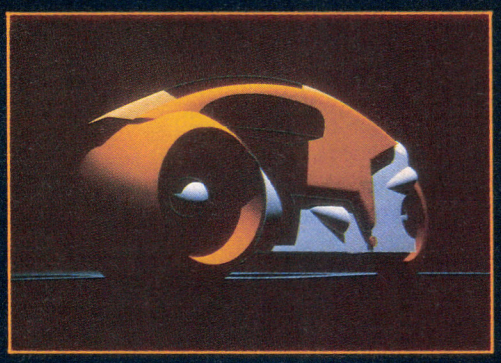


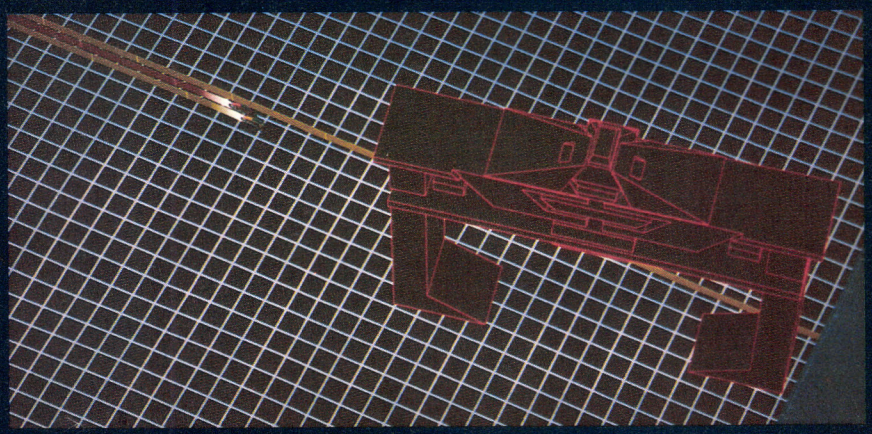






Walt Disney Productions recycled overly-familiar science fiction hardware in its last big special effects movie,* The Black Hole. *Thematically and in terms of its art direction, the studio's new SF extravaganza,* Tron, *is conceptually and visually unique. Shown here are a few of the exciting props seen in the motion picture.





gers of arcade games exist as three dimensional reality, death through de-resolution being the ultimate penalty.

Luckily, not everyone in the computer world fears the MCP. Some remain loyal to their human "users" at ENCOM. The mightiest of these electronic rebels is the warrior Tron (Boxleitner). Together, Tron and Flynn escape the game grid on motorcycles made of electronic light. They race off to sabotage the MCP, to which end they enlist the aid of a simulation program named Yori (Morgan) and of Dumont (Hughes), an aged keeper of an input/output tower where programs were allowed to communicate with their users before the MCP shuts off all access.

To reach the MCP, the revolutionaries steal a solar sailer and battle Sark's flying carrier on the Sea of Simulation; they elude the police programs called Recognizers; and Tron receives an "information disk" from Alan Bradley which gives him the power to destroy the MCP—*if* he can reach it.

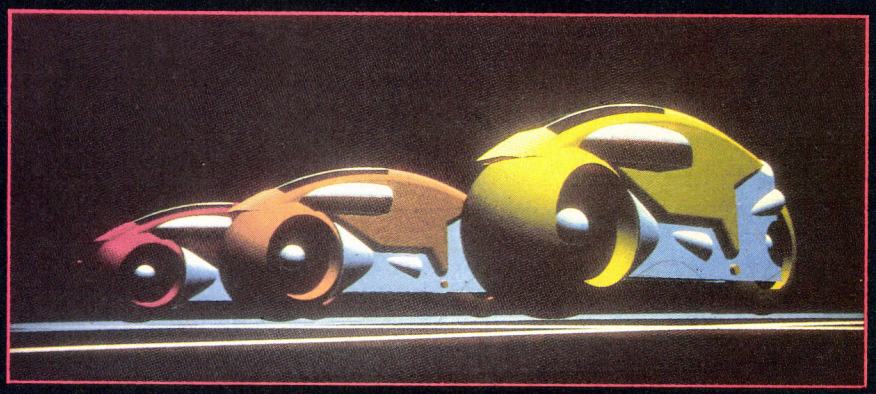
Tron's heroic strength and Flynn's understanding of computer systems and videogames guide them to the MCP. There, they fight the spectacular battle which ultimately wins them control of the ENCOM computer system.

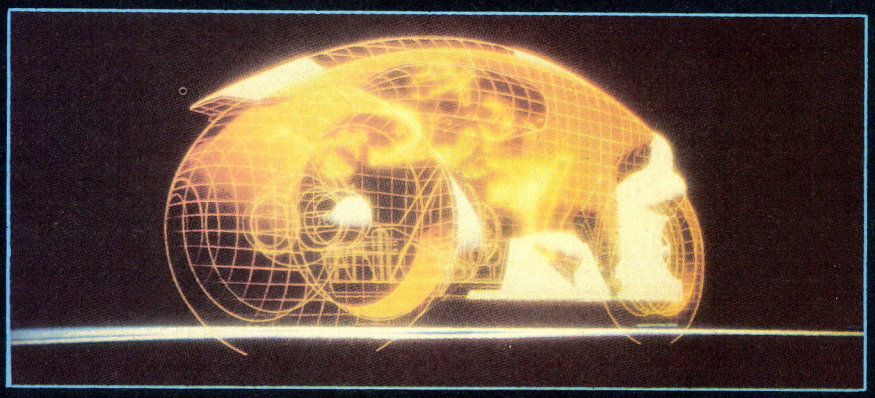
As far as credibility is concerned, the notion of sentient "energy people" ranks alongside Pinocchio and the Shaggy Dog. However, allowing Lisberger and his confreres their narrative conceit, *Tron* is endlessly entertaining. Much of the film's impact derives from its visuals which are, as the cliche goes, like nothing you've ever seen. Most science fiction films create their spaceships, monsters, alien cityscapes, et al., using scaled miniatures —highly detailed models which are photographically enlarged and/or superimposed with real actors using a variety of special effects techniques. *Tron* employs no miniature models, all of the film's otherworldly hardware and many of its denizens are brought to life using computer animation. This process allows objects to hover in mid-air, pass through one another, or melt into pools of electricity without any obvious camera trickery.

Tron's computer images are the work of two companies, Information International Inc. of Culver City, California, and the Mathematical Applications Group Inc. (MAGI) of New York. The art was executed and animated by computers based upon designers' renderings. In this case, three artists contributed their conceptual talents to the film: comic book illustrator Jean "Moebius" Giraud (who worked on *Alien*), futurist Syd Mead, and high-tech commercial artist Peter Lloyd. The objects they envisioned were plotted in three views (top, side, and bottom) on large sheets of graph paper after which, grid-by-grid, the drawings were fed into the computer. The computer thus learned the measurements of the buildings, conveyances, life forms, etc. in all three dimensions, allowing the programmer to use the computer to "draw" each prop's frame-to-frame movement in the film. Once the actual motions were choreographed and stored, each frame was given color and texture. This was done by assigning a color and intensity to each *pixel*, each point of light which comprises the computer image. "It's no different from the way they light the big billboard in Times Square," explains Larry Elin who heads the MAGI team on *Tron*, "except that the billboard has maybe eight thousand lights whereas one of our monitors can have over two million pixels." In an interview with *Videogaming Illustrated*, Elin went on to explain that these computer images were recorded on tape and eventually transferred to regular movie film by photographing the pictures one-by-one off a high resolution cathode ray tube. The resultant on-screen images in *Tron* are much more detailed and versatile than the graphics of any arcade game, realism which likewise transcends anything the filmmakers could have accomplished using miniature models or traditional cartoon animation.

Richard Taylor, who is in charge of the Entertainment Technology Group

The solar sailer, a futuristic spaceship designed by Syd Mead.

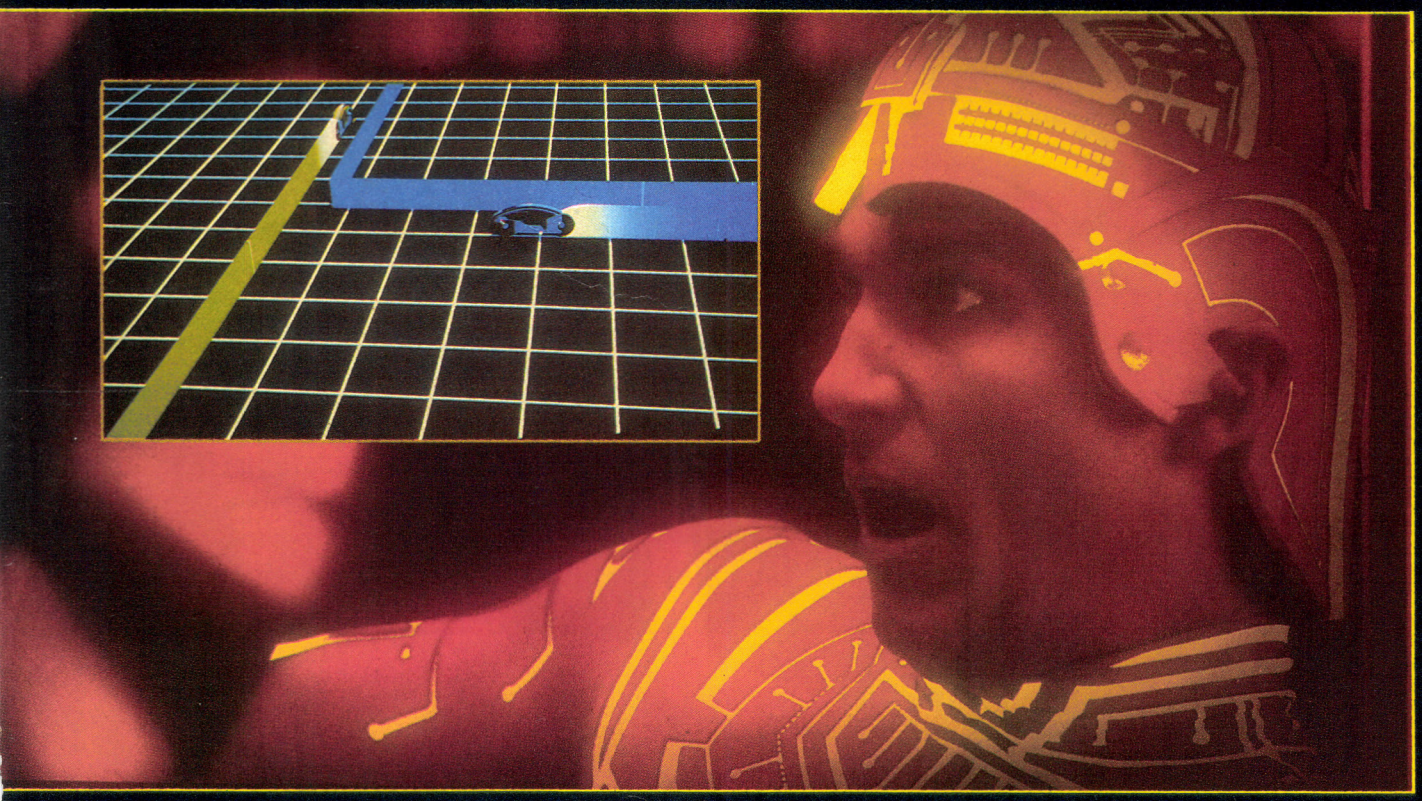


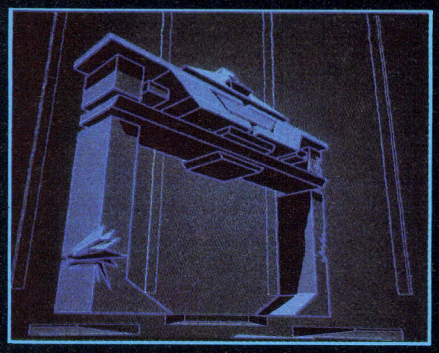


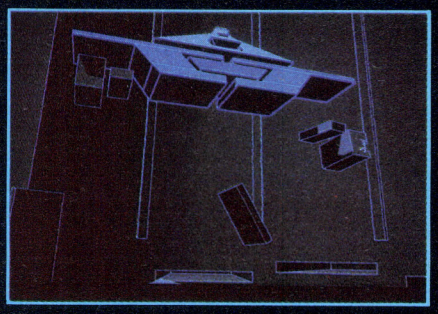
at Information International and oversaw the design and programming of all the computer animation in *Tron*, goes a bit further in his praise of the special effects processes used in *Tron*. "Computer simulation is visually perfect, the most powerful tool available to the film industry. For example, one of the most difficult things to do in any type of special effects is *true* perspective, to have objects in correct spatial relationship to one another. In a movie like *Star Wars*, where there's an X-wing fighter flying through a trench, there are bound to be discrepancies because you're combining models which were filmed separately. You're basically faking together a reality. A computer simulation can do a scene like that with absolute precision simultaneously changing the images from solid to transparent while they pulse with electricity, if you wish. It's simple."

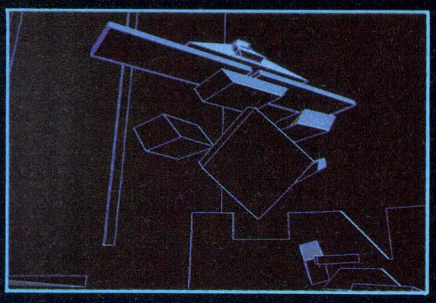
According to Taylor, *Tron* is just the beginning of the impact computer simulation will have on motion pictures. "Right now, we could replace actors in a medium or long shot in any feature film using a computer simulated figure. You'd never know is wasn't a real person. Within ten years, we'll be able to do totally computer-generated faces, though they may not have a twinkle in their

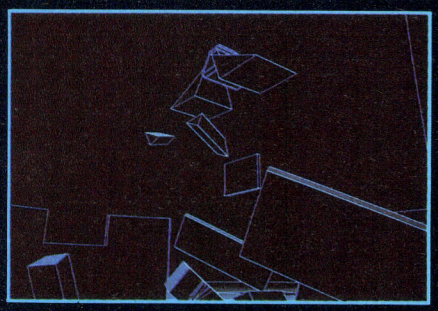
Opposite page, bottom: videogame warriors become computer cycles. This page, below: a startled Jeff Bridges and cycles crossing a game grid. Above: Tron and disc (below), electronic guard (top) and Dumont (right).

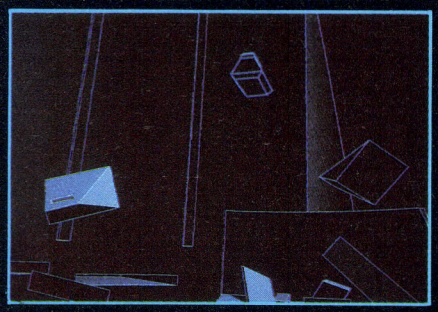


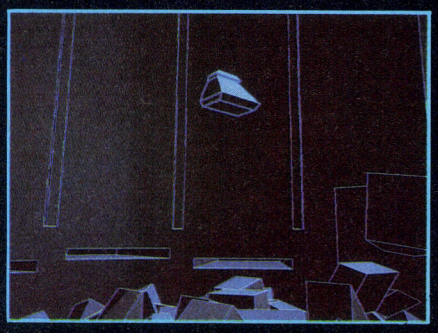


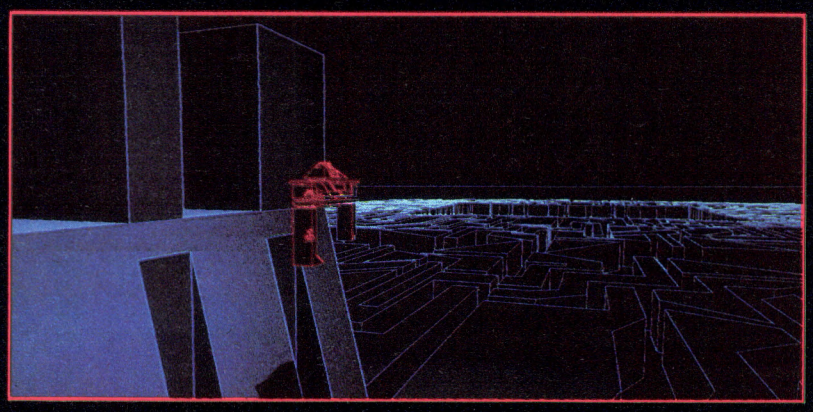


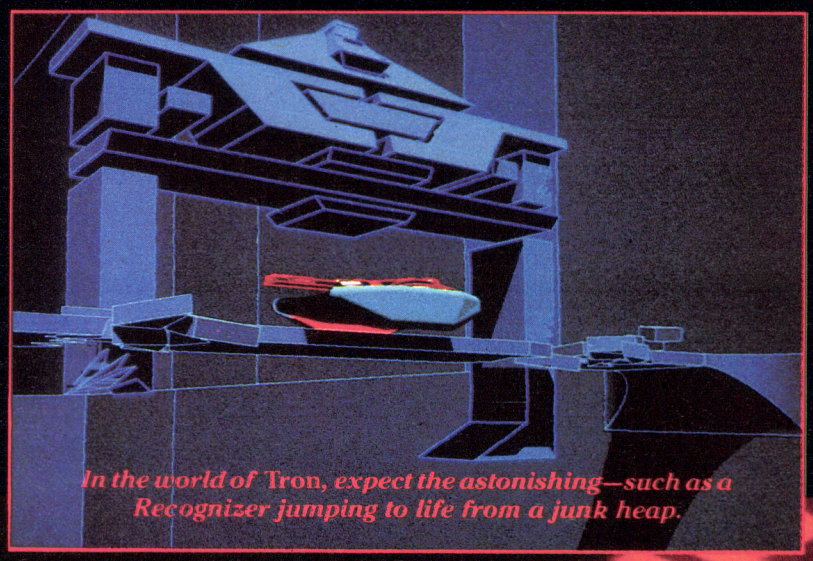




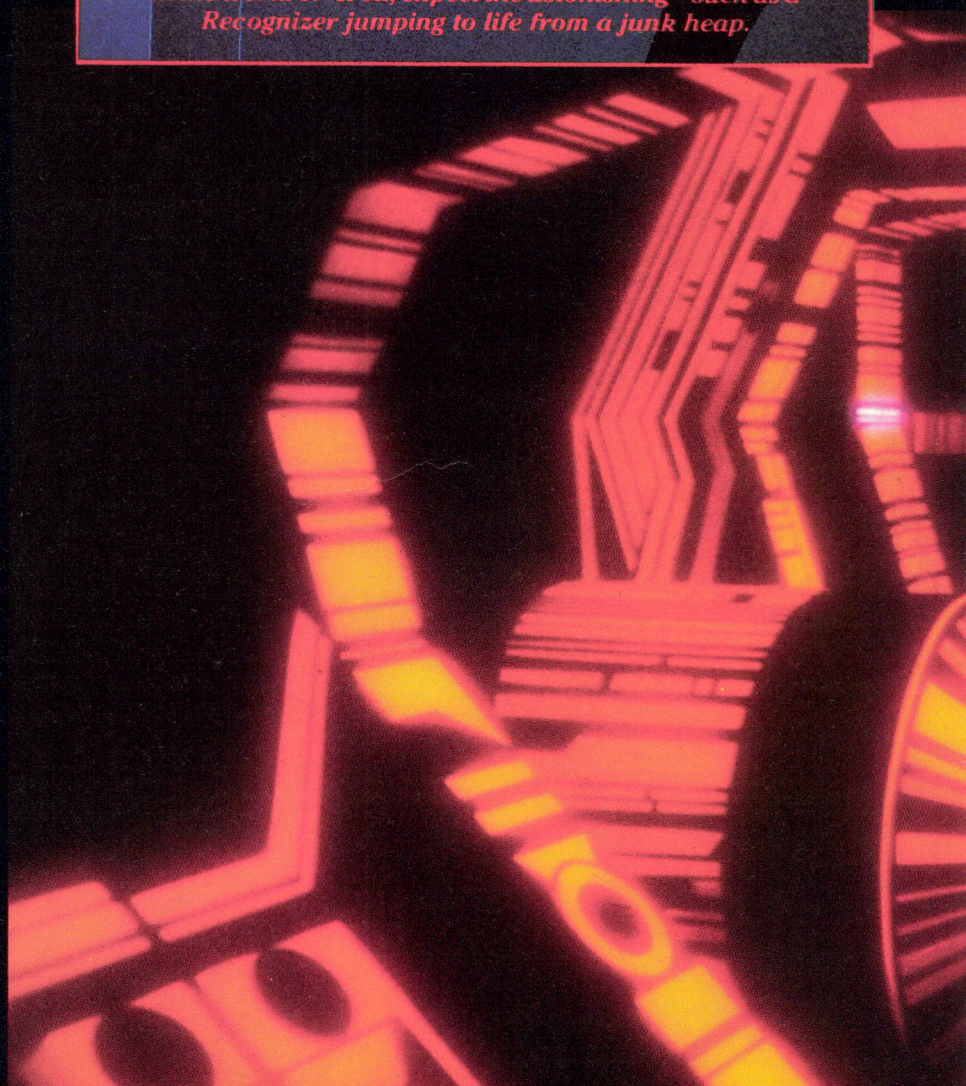




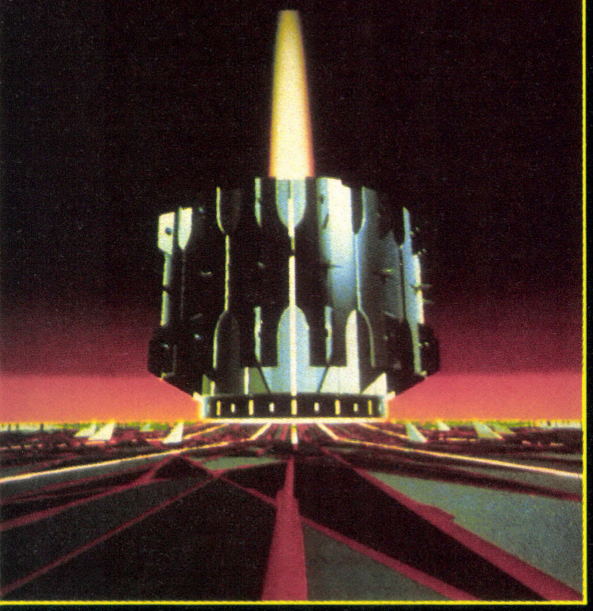


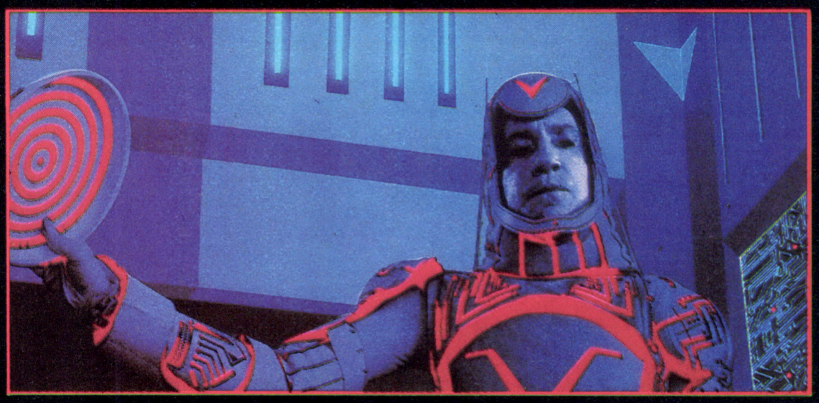


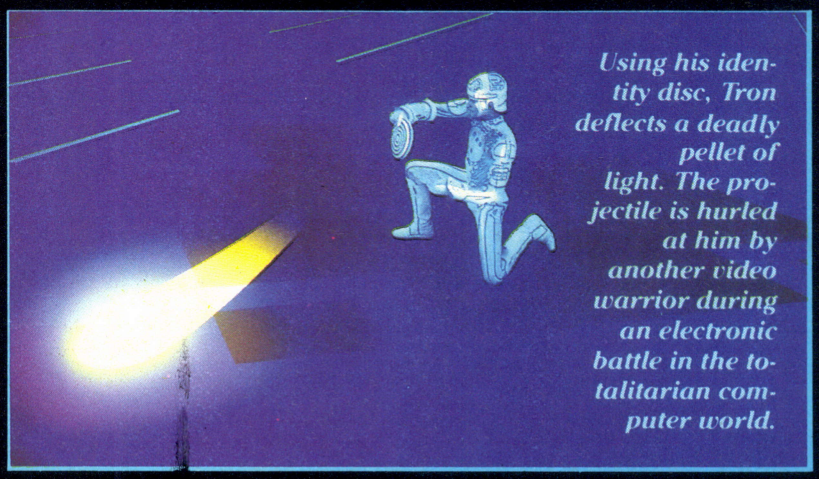
In the world of Tron, *expect the astonishing—such as a Recognizer jumping to life from a junk heap.*



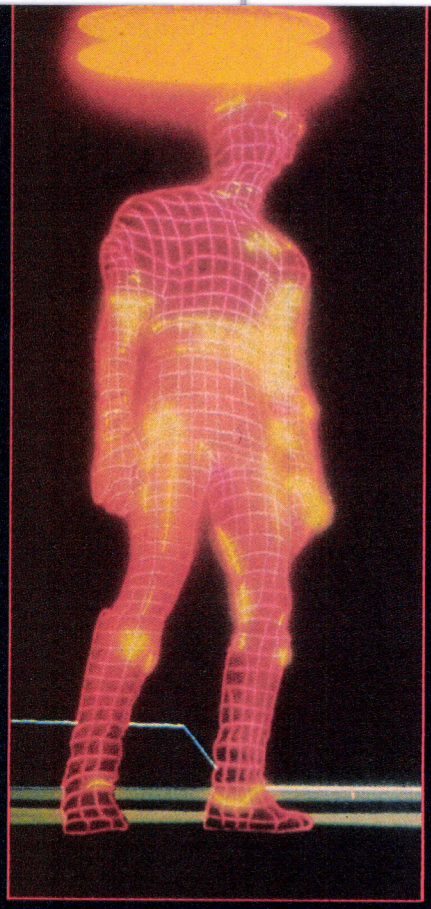
Motion picture cityscapes created using miniature models invariably look like toys. By inventing its own reality rather than trying to mimic the one in which we live, Tron creates breathtaking panoramas such as this.

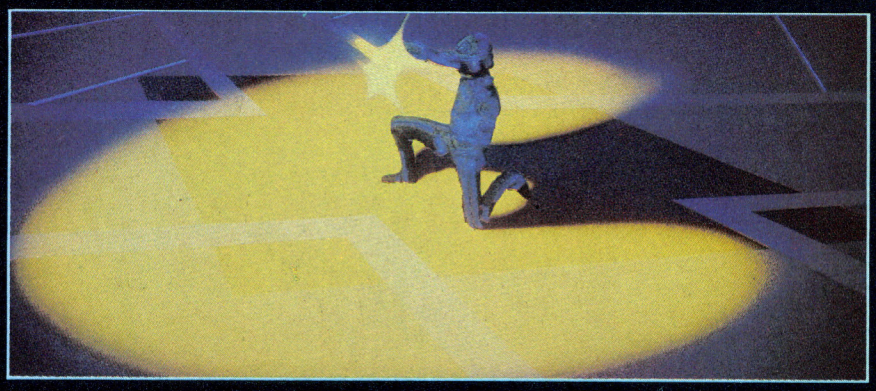


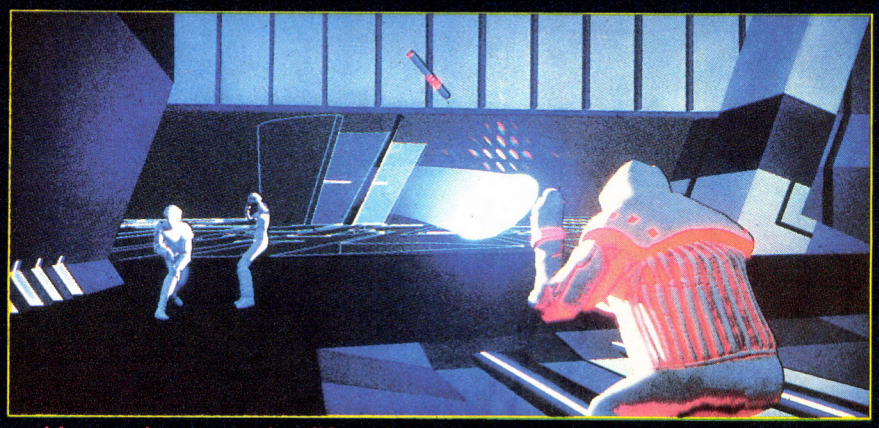




Using his identity disc, Tron deflects a deadly pellet of light. The projectile is hurled at him by another video warrior during an electronic battle in the totalitarian computer world.







Wonders and dangers in the world of **Tron**; *video warriors engage in a life and death struggle; a videogame soldier begins the metamorphosis to a cycle; and Tron himself in the midst of battle.*

eye the way a human does." An immediate application of this technology, suggests the computer effects wizard, is to perform dangerous action scenes in motion pictures. This would not only unemploy stuntpeople, but actually improve on reality. "We could have a computer-simulated person jump out a window and add the glass spraying any way the director wants. Or we could blow up a computer-generated car with the flame, smoke, and tires along with every other piece of debris reacting whatever way we program them to." *Tron*, he promises, is only the beginning.

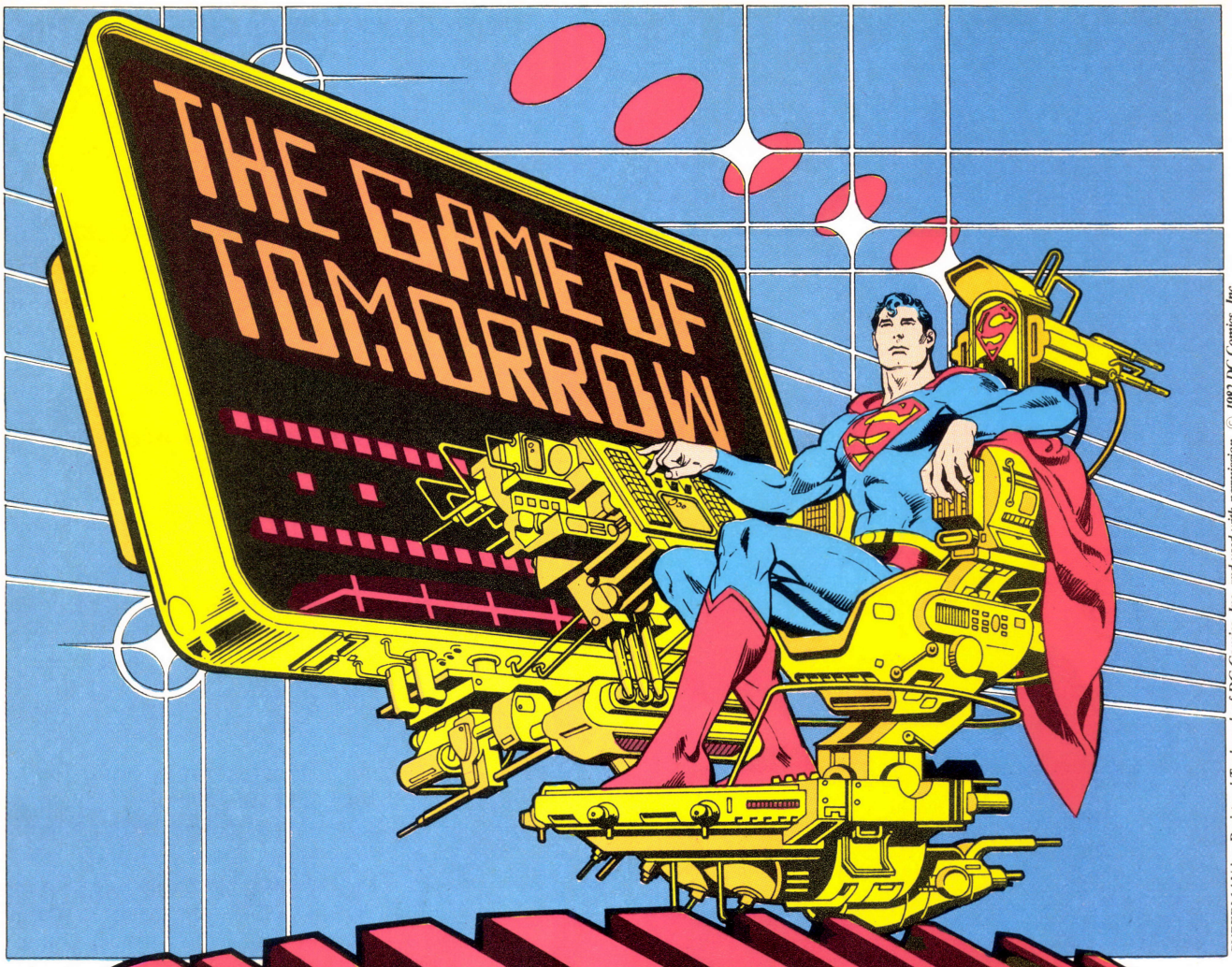
In addition to utilizing computer images, *Tron* remains faithful to its videogaming origins in other ways. As in the combat games like *Outlaw* and *Robotwar*, inhabitants of this film's electronic world carry "identity disks," colorful artifacts of light which are used for storing information and double as weapons on and off the videogame grid. And when the warriors of *Tron* fire their disks, they do so with style: Sam Schatz, a former national Frisbee champion, trained the actors and designed fight scenes which include straightforward whirling tosses as well as behind-the-back, kick, and trailing edge catches, among others.

The sounds of *Tron* are likewise reminiscent of the various games you've played, though elaborate beyond compare, and even the music is electronic, composed by virtuoso synthesizer performer Wendy Carlos. Ms. Carlos created a unique mix of electronic and symphonic sounds which is even more impressive than her evocative, often chilling work in *A Clockwork Orange* and *The Shining*.

Yet, of all the personnel who worked on *Tron*, the single most influential figure was director Lisberger. Long a videogame buff, Lisberger first conceived the project in 1978. After exploring the field of computer animation, he partnered with producer Donald Kushner and in mid-1980 brought *Tron* to the Disney studio. A deal was quickly struck. Lisberger recalls, "They gave us money to do a demonstration, to prove that we could create the effects we claimed were possible. It's to Disney's credit that they didn't say, 'Call us when the computers can draw a mouse.' They're taking risks with this film," he admits, "but that's what got this studio rolling in the first place."

Tron is making history in yet another way: it is the first motion picture to be represented by arcade and home videogames. There are presently over five hundred of Bally's new *Tron* arcade games in Alladin's Castle outlets as well as in theatres which will be showing *Tron*. On the home front, next month Intellivision will release two different *Tron* cartridges. The first one pits a single player, as Tron, against the MCP's evil blue champion on a grid battlefield using identity disks as weapons. In the second game, two players must destroy monstrous "bits"—units of computer information personified as lethal vermin in the film—while trying to reach the MCP's inner circle.

Playing the *Tron* games will never give you pause to consider whether or not there's a real Sark somewhere down there in the circuitry. *Tron* is simply not the kind of film which inspires belief to that level. What it does manage to do is suspend your *dis*belief and, as with the videogame field which spawned it, audiences who surrender to *Tron*'s scope and adventure will find the experience *most* invigorating. Without question, it's a film which will help to restore the public's faith in the creativity and showmanship of Walt Disney Productions.



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SUPERMAN

FIGHTING FOR TRUTH, JUSTICE, AND THE AMERICAN WAY... IN UNDER TWO MINUTES FLAT!

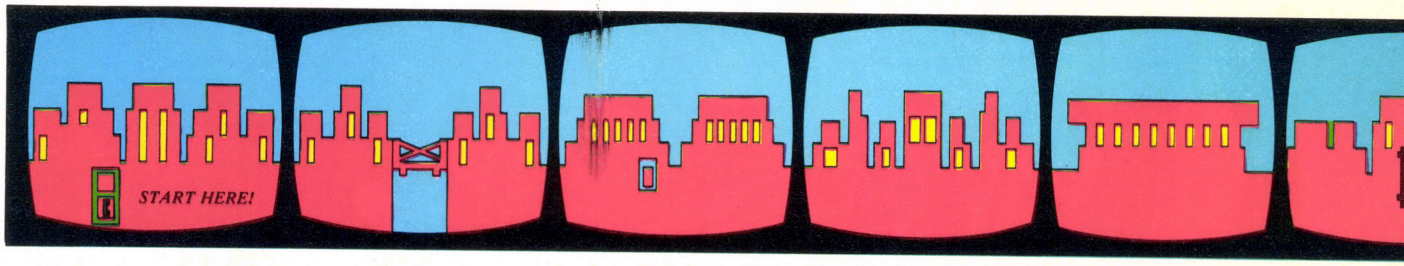
Gamepoints is a strategy session which, each issue, analyzes three home videogames. Old or new, popular or obscure,

Object

Superman becomes reporter Clark Kent and sets out for the *Daily Planet* Building. En route, the bridge he is about to cross explodes; simultaneously, six villains are discovered to be on-the-loose in Metropolis. Five of these are minor thugs; the sixth is Lex Luthor, Evil scientific genius. Hastening back to the phone booth, Kent doffs his street clothes and becomes the Man of Steel, hurtling into the air to collar and jail the wrongdoers, and to repair the destroyed bridge. Thwarting him as he zooms across the twenty-six different cityscapes are drifting "satellites" of kryptonite, which chase Superman and rob him of his ability to fly. He can only be cured by a kiss from Lois Lane. Also hampering his efforts is a helicopter, which keeps snatching up and relocating pieces of the bridge which Superman is trying to reassemble. The game ends when Superman has completed all his objectives, dresses up as Clark Kent, and finally makes it to the newspaper building.

Variations

There is only the one epic adventure. The difficulty switches control the speed with which the criminals run from Superman; the speed of the drifting kryptonite; and whether or not Lois Lane automatically appears on the screen when Superman is zapped by the strength-sapping satellites.



Superman versus Lex Luthor, criminal genius!

The first and most exciting videogame based upon a comic book hero!

Scoring

Players race against the clock to complete their missions; there is no point-scoring.

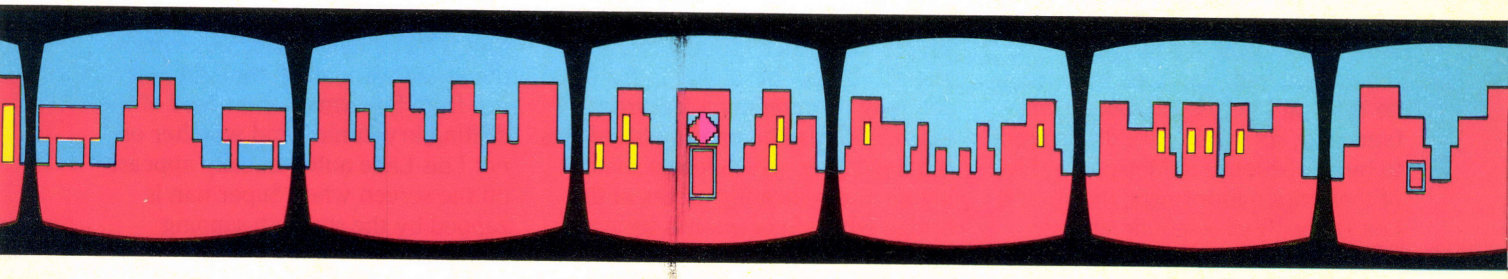
Control

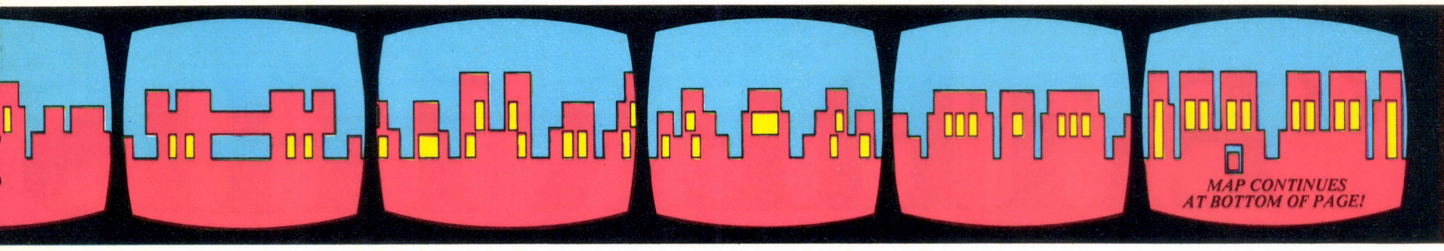
SUPERMAN is a joystick game. The caped Kryptonian responds to the stick, flying in whatever direction the player points. When kryptonited, he can only *walk* from left to right. Depressing the action button operates Superman's unique X-ray vision, allowing him to peer into the screen which is next over in the direction he is facing.

Patterns

The criminals travel at random, though at the beginning of the game they tend to cluster underground, like vermin, in the Metropolis subway system. The three pieces of the bridge are likewise scattered unpredictably across the landscape, first by the blast itself and thereafter by the helicopter.

The only "constant" in *Superman* is the layout of Metropolis, which a videogamer *must* learn to beat the game. Accompanying this article are maps of the city. The map at the top and bottom of this page chart Superman's progress as he travels horizontally from the phone booth. On page 63 are maps indicating what Superman will encounter on a vertical flight. Note: the obstacles are the same, though in different order. The *exceptions* are the phone booth and bridge. Though these recur when he travels horizontally, they *cannot* be reached along a vertical path. Continually flying up, Superman will pass right from "Q"





back to "T", skipping the phone booth; flying up from the bridge will take him to "L", down to "T", which will thereafter carry Superman to each of the screens to which they ordinarily lead.

Shortcutting around Metropolis is accomplished by using the subways. There are four different subway "systems": blue, green, yellow, and orange. Access to these is through any of the five subway entrances located throughout Metropolis as indicated on the map. Once inside any subway system, a player can pass to the other three by flying Superman *up* from one to the other. They always appear in the sequence noted above. More important, however, is being aware of where the subways lead by flying left, right, or down. This simple chart provides the directions:

System	Descent	Left Exit	Right Exit
Blue	"U"	"J"	"E"
Green	"G"	"O"	"R"
Yellow	"I"	"N"	"L"
Orange	"M"	"F"	"T"

Of all the locations, the handiest to remember is the jail: it's the screen immediately to the *left* of the orange subway stop. Upon capturing a felon, head for the subway system and stay there until you reach the orange level, going directly to jail.

Strategies

After you change from Superman to Clark Kent at the beginning of the game, you'll be heading *right* from the phone booth. The bridge is in the next screen over. The explosion is triggered by Clark Kent entering the screen; you can't become Superman until after the explosion. However, there is no need to waste time going right up to the bridge, which is in the center of the screen. Simply set foot in the bridge screen and, once that screen has flashed on the TV, turn and hurry back to the phone booth. You won't get to see the detonation, but you will *hear* it and save as much as five seconds.

Once you have become Superman, fly up one screen then drop immediately back down. The phone booth screen will have been replaced by screen "Q", which is a subway screen. Enter it and nab the first thug you encounter. Head for the jail via the orange subway system; once the criminal has been secured, descend one screen to the nearest subway stop, returning underground to see if there are any more evildoers therein.

Continued on page 63

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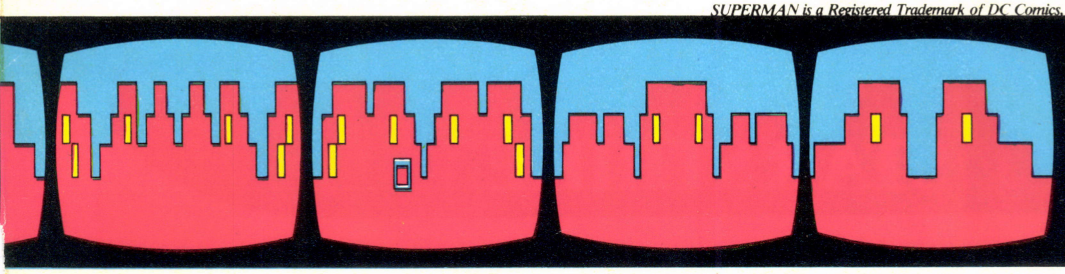

The horizontal map of Metropolis offers a player access to cityscapes that cannot be reached by flying vertically. The suspension bridge, which must be rebuilt before game's end, is among such vistas.

"EITHER THIS
SPACE GA
OR MY LIVI
GOING 1

IS THEIR BEST
ME EVER,
NG ROOM IS
65 MPH."

Aliens up ahead. Aliens attacking from the rear. Alien ships on every side. Meanwhile, the earth is moving steadily into range of enemy missiles, as the alien planet rushes by below.

Presenting Star Strike™. The exciting new space game complete with brilliant colors, gripping tension, and special effects so realistic they appear three-dimensional. So you almost feel like you're flying.

Be careful, though, and don't lose your concentration. You've got to destroy the enemy planet. Before it destroys the earth.

Play Intellivision® Star Strike. Then, when the battle's over and the dust is clear, compare it to other space games. We think you'll agree that color, excitement and special effects make Star Strike the clear winner.

MATTEL ELECTRONICS®
INTELLIVISION®
Intelligent Television

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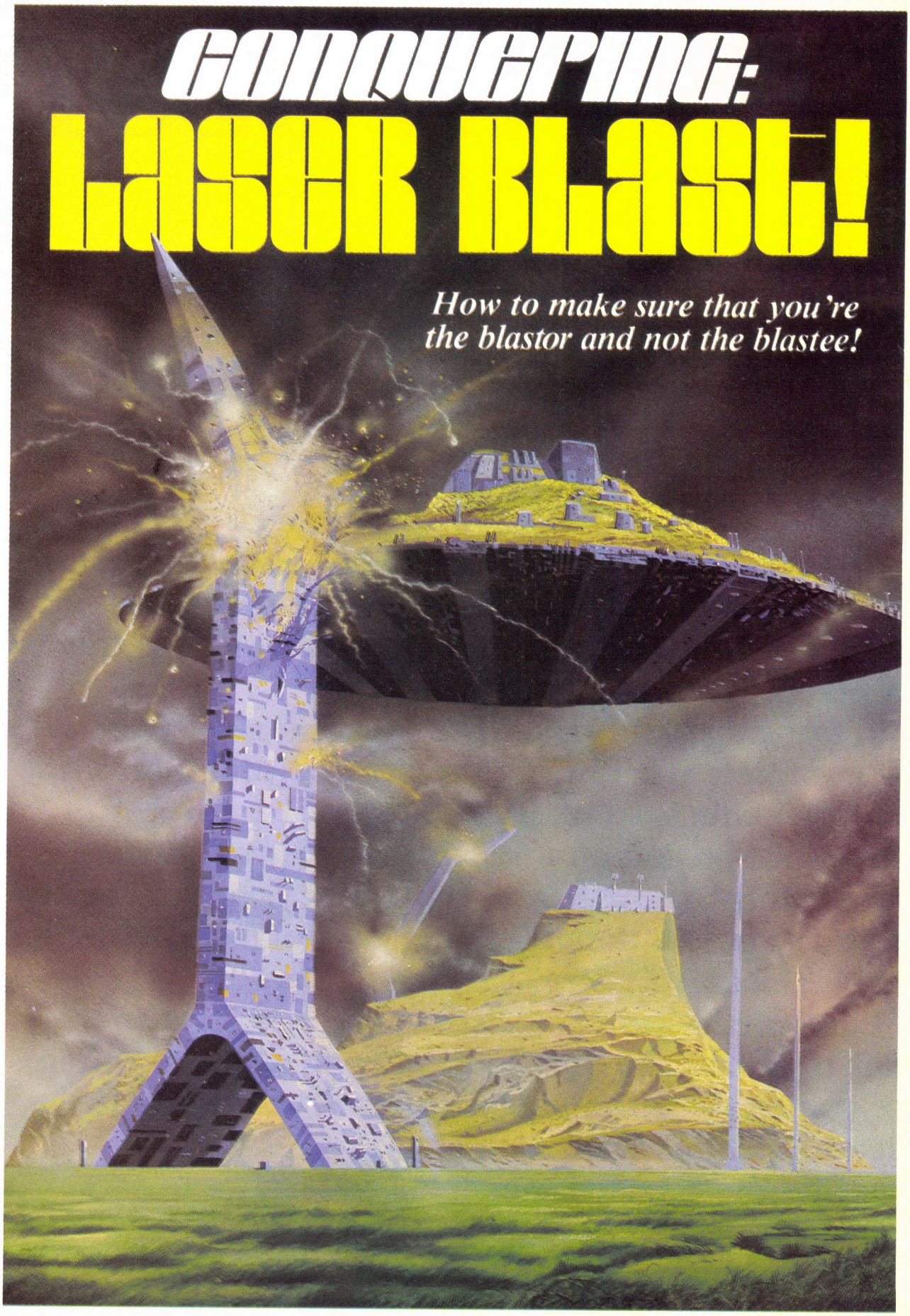
CONQUERING: LASER BLAST!

How to make sure that you're the blastor and not the blastee!



ART BY ANGUS McKIE © 1982 BY YOUNG ARTISTS LIMITED

A game in which you are the aggressor! Guide your fleet of crackerjack space-jockeys to a distant planet, flash through the alien atmosphere until your targets are in view, then prepare for a battle royale!

Object

Here's your chance to turn the tables on those alien invaders you've fought in countless video battles. This time *you're* the invader, sending a saucer fleet against laser bases on another world. You begin the game with four ships, each of which can maneuver in all directions over the terrain and fire death beams straight down or angled 30° to the left or right. The enemy installations come rolling in from the right, three per wave, each with a laser cannon more versatile than your own. Operated by computer, the guns quickly home in on your saucer, drawing a bead from seven different positions as opposed to your three. Knowledge of your whereabouts is not shared between the guns: each must find you on its own. Though slower than your saucer and planet-bound, the bases are also mobile. The game ends when you have destroyed one million points worth of enemy bases, the game maximum.

Variations

There are four levels of play: Cadet, Lieutenant, Captain, and Commander. At each succeeding level, the ground forces move about the surface more quickly and fire more rapidly. They also generate increasingly stronger force fields which, after several waves, will limit your lateral movement to the very top of the screen.

Scoring

Regardless of the difficulty level, you win ten points for each base you obliterate in wave one; twenty points per base in wave two; and so on until you're earning ninety points per wave. You are awarded a bonus saucer for every one thousand points scored; the computer stops giving you extra ships when you've a half-dozen in reserve.

Control

Laser Blast is a joystick game. The stick steers your saucer around the screen. When you depress the action button, the stick function changes, allowing you to aim your death beam; releasing the action button fires the laser.

Patterns

Your ships enter the fray from the top left of the screen, and the enemy bases always roll in from the right. Their subsequent movement across the landscape depends entirely upon your own actions.

Regardless of the wave or level of play, the bases discharge middle gun first, then right, and finally left. If you knock out one gun, the remaining two take alternating shots.

Strategies

There's one attack pattern which never fails. You may discover others, but this one's the least complicated. It's force-field-proof, meaning that it works at virtually every height; nor is there a chance of wasting a shot because your cannon wasn't properly positioned: There's no need to shift the death beam from its vertical alignment.

Lower your saucer to its bottommost level, hovering beneath the center ship of the three inactive vessels at the upper edge of the screen. When the enemy batteries are in place—neither they nor you can begin the battle until they're positioned—fire straight down on the left fortress, then shuttle quickly to the middle and fire straight down on that gun. Skip all the way to the left of the screen: the remaining base will fire at the airspace you departed after your second blast. That laser will miss, after which you should dash directly over the last installation and decimate it with a ray fired dead-straight down.

Stay on the right side of the screen. When the next wave arrives, it will be hunting for your ship with a vengeance. Quickly strike the base on the right with a vertical beam. Move to the extreme right of the screen as the left fortress fires and misses, and then the central gun does the same. The left gun will fire *again* and miss, as it will merely be protecting the airspace directly over the center battery—vulnerable because it's not that gun's turn to fire. When these three blasts have failed to bring you down, scoot your ship over and take out the center gun with a rapid vertical strike. The attack *must* be quick: If you miss *this* fortress it will nail you. Darting back to the extreme right, wait there while the last fortress fires where you *were*, over the center base, then hurry over and destroy it with your sixth vertical burst. Make sure you don't move until *after* your shot has hit home. The enemy gun will be almost directly below you by now, and you may well collide with its laser by moving too soon.

As soon as the second wave has been neutralized, hurry to the left side of the screen. Destroy the bases of the third wave in very direct left-center-right succession. Be careful, however, to step back an inch or so after each shot. The surviving guns will discharge at your last known position, and you'd obviously rather not be caught there. Use this identical left-center-right strategy for the remainder of the game, whether at Cadet or Commander level. If you've got the patience, there is no reason why you shouldn't score the one million points after three hours.

If the worst does happen, and your saucer is shot down, don't abandon the ship prematurely. You can still control its horizontal descent, and should try to drop it right atop the alien base. Do so, and you will score the full point-credit allowed such a kill.

Should you miss a beat somewhere along the line, don't panic. Remember that an alien cannon can only strike you if its laser beam is pointed in your direction. Note where in the middle-right-left shooting cycle the bases are. You can stand still and gather your wits if a gun across the screen is slated to fire; or, if one poses an immediate threat, you can hit the thrusters and run, taking care not to rush headlong into a ray from the next gun to fire.

Comment

Laser Blast was the eighth of Activision's games, issued in March of 1981. It was created by David Crane, whose other videogames for that company include *Dragster* and *Fishing Derby.* Earning 100,000 points or more entitles a player to be enrolled in the Activision Federation of Laser Blasters, an honor which earns the sharpshooter a letter of commendation and a colorful iron-on patch bestowing upon the wearer the rank of Commander.

CONQUERING U.F.O.

ART BY ANGUS McKIE © 1982 BY YOUNG ARTISTS LIMITED

Ramming and blasting your way to a safer universe!

Object

You're in command of one of the Earth Federation's robot-controlled battle cruisers. Armed with a laser cannon and protected by a powerful force field, you are sent into deep space to destroy a massive fleet of UFOs. The invasion force is composed of three different kinds of vessel: Drifters, which float along at random and can only harm you through collision; Hunter-killers, linked Drifters which home in on and likewise ram your battle cruiser; and Light-speed Starships which launch computer-guided missiles that seek out your spacecraft. There are two ways to vaporize the enemy: with a laser blast or by ramming it with your force field. Both actions cause your battle cruiser to lose the protection of the force field for a full second. During this time, collision with a Drifter or Hunter-killer, or being shot by a Light-speed Starship will destroy your space vehicle. Otherwise, the game continues for as long as you can stay airborne.

Variations

There is no level to *UFO* other than this sprawling engagement with the space marauders.

Scoring

Atomized Drifters earn you one point, Hunter-killers win three points, and Light-speed Starships are worth ten points.

Control

UFO is a joystick game. The stick maneuvers your robot cruiser in any direction about the screen, and the action button fires the laser.

Patterns

There is no way to predict when and where an enemy ship will appear. Of only one fact can you be certain: the hostile fleet will become thicker with each passing second. Even the best players find it virtually impossible to clear the screen of every new ship as it arrives, meaning that for the bulk of play *UFO* is a game of defense rather than offense.

Strategies

The laser is a weapon of surprisingly limited value. The 'spout' is a bright dot which orbits your ship on a lighter ring which represents the force field. This nozzle swings around to point in whatever direction your ship is traveling. However, in the fraction of a second the laser takes to circle into position, your target is likely to have moved or you may have been forced to withdraw by a sudden clustering of ships. Its sole asset is in the long-range attack, striking at any vessel within one-third of a screen-length while you hold your position to ram those nearby. The time you spend racing over to ram that distant ship could well allow two or more spacecraft to get a foothold in the area you va-

Continued on page 53

Amusement operators EXPO 82

An arcade experience!

First, some background. For videogame fanatics all over the country, visits to their favorite arcades are rarely more than a fun battle between player and machine. However, there are thousands of people who hang on every coin thrust into the video and pinball slots. Those quarters and tokens are their livelihood, and what is just a pleasurable pastime to arcade players is far more meaningful to them.

Before patrons can ever enjoy the simple thrills of playing the machines, someone has to conceive it, design it, and sell it to a manufacturer. Then the manufacturer must find the right engineers, electricians, programmers, and technicians to make the creator's conception work on a video screen. Once that prototype machine is created—the one of a kind "first model"—a cabinet maker must be hired to mass produce the various upright, mini-units or cocktail tables required. In addition, the insides of the machine—the various micro-computer chips, wires, plugs and other electrical components—must be purchased and assembled. Even then, the process is not finished. The marketing and sales force must go through a distributor—the classic "middle man"—who gets them units direct from the manufacturer and sells them at a profit.

This parlor primer may be old news to some, but the refresher is necessary to explain the Amusement Operators Expo. To facilitate the selling of these machines to Arcade owners, the industry sponsors several conventions every year to enable buyers to actually see and play the newest models.

Continued on page 54

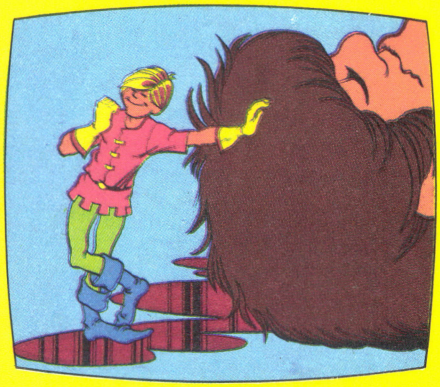
PHOTO BY DOUG BAIRD © 1982

Move over Pac-Man...

What's Coming in the Arcades!

The challenge facing arcade manufacturers is to put out a game which is somehow different from *Pac-Man*, *Space Invaders*, *Donkey Kong*, and *Qix*, without sacrificing the elements which made those machines a success. Each company has a different answer to the problem. For some, restating the standards in a new setting is the solution. Others concentrate on the same themes with different graphics. Still others find that originality works best—as long as the game is *fun*. All three approaches have been used to devise the games you'll be playing throughout this year and into the next.

Cinematronics, the California company that introduced *Space Wars*, has come up with a couple of new machines that dip into fable and science fiction alike to challenge arcade-goers.



JACK THE GIANTKILLER

Jack The Giantkiller puts the "Jack and the Beanstalk" fairy tale onto the small screen with twelve levels of difficulty. In brief, our video hero must climb the plant, then catch the goose who's laying golden eggs, try to grab a bag of gold, get through the treacherous cloud at the top, enter the giant's castle, wake the giant, collect the golden harp, rescue the Princess, race down the beanstalk, and finally chop the thing into splinters—all the while using magic beans to destroy attackers. It was great as a bedtime story, but the quarter you put into the machine gives it a whole new dimension! Though reminiscent of *Donkey Kong*, *Jack The Giantkiller* has a rustic charm of its own, and is complex enough to keep players coming back for more.

Researched and written by Richard Meyers.* Videogaming Illustrated *is proud to announce that author Meyers has recently been nominated for the prestigious* Edgar, *awarded annually by the Mystery Writers of America, for his nonfiction book* TV Detectives *published by A.S. Barnes.

ROBOTRON
2084

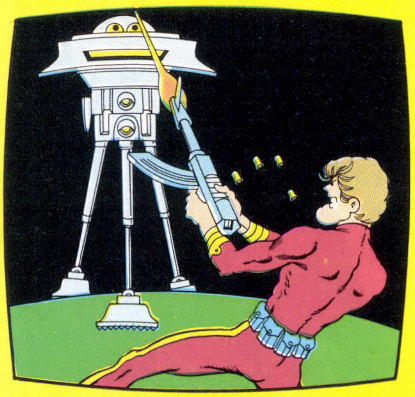
Frisky Tom
Nichibutsu
Frisky Tom

LOCO MOTION

D-DAY

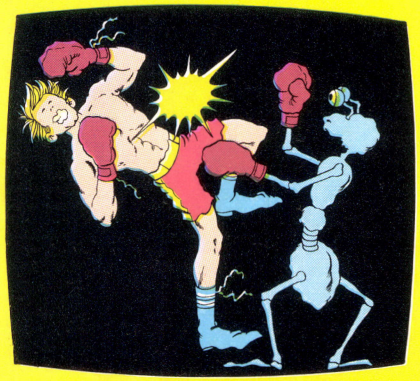
ZAXXON

PAC-MAN



WAR OF THE WORLDS

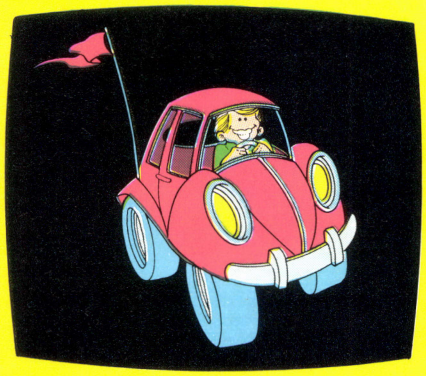
On a simpler but hardly less challenging level is *War of the Worlds*, torn from the pages of H.G. Wells' cataclysmic novel. The spider-like walkers that nearly destroyed the Earth in the monumental science fiction classic come to bright life on the screen and come crawling toward the player. They get bigger and bigger as they approach. You, in the meantime, are operating a Battle Base which comes complete with a fading, crackling, protective shield and missiles. First, you have to avoid the monsters' lasers, then you have to cut them down to size, blasting away at their legs until they lay helpless. Even then, you have to be quick enough to destroy the stranded "killer crown" before it takes off for outer space.



BOXING BUGS

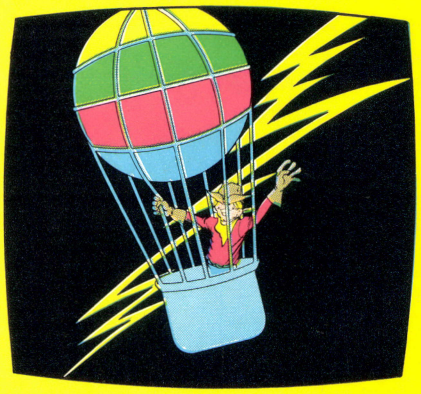
War of the Worlds is a demanding game, as is Cinematronics' *Boxing Bugs*, which will introduce arcades to a delightful new character. The stars are bugs who carry around big round bombs with burning fuses. The player is equipped with an arm which sports a boxing glove on one end and a cannon on the other. Out of the cannon come asterisks which knock back the bombs; the glove, meanwhile, is on a spring which uncoils to k.o. the insects. The fight is fast and furious and becomes increasingly difficult with each new round. Many Expo spectators mentioned that *Boxing Bugs* has all the makings of next year's big "hit."

While Cinematronics offers up two fights and one fable, Rock-Ola has a pair of eccentric adventures to lure customers. Both feature stages of play and both actually have an *ending*. They are games the player can actually *win!*



JUMP BUG

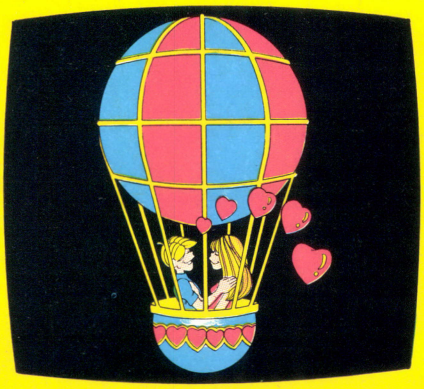
The first and strangest is *Jump Bug*, licensed from Hoei. A springy Volkswagen bounces across a city's rooftops collecting money while avoiding smiling creatures from another world. If you succeed in getting out of the city, you hop across the plains, watching out for rocks. The plains end at the volcano ranges, where sudden eruptions can fry your car with video lava. If you survive that jaunt, you enter the world of skulls, bats and ghosts who are protecting a diamond encrusted pyramid. Once this obstruction is out of the way, you're back lava-hopping with even angrier volcanoes and new hordes of other-worldly horrors until they all get cooled off at the seashore. Here, your Bug submerges, gulping down cash while big birds drop depth-egg charges from the sky, jelly fish stretch their poisonous tentacles from various points and whales fire killer fish from the sides. Sufficiently exhausted? Wait! The best is yet to come. At the end of the ocean is a launch pad which blasts the Volkswagen into the sky where you have to jump from cloud to cloud while dodging other rockets. Finally, you get to land the little auto on a runway, which you would think finishes the game. Not so! That runway ends on a diving board which overlooks a far more *difficult* cityscape.



PIONEER BALLOON

As strange as *Jump Bug* is, it's nothing compared to the hectic *Pioneer Balloon*, a game which makes *Around the World in Eighty Days* seem like a lark. In the first screen, an observation balloon is sailing peacefully over the prairie when it is attacked by arrows from covered wagons. Naturally, you start bombing the wagons but they have allies working against you in the air: Deadly birds who swoop at you like enraged pterodactyls. Once you've destroyed the covered wagons, you move on to a village whose natives hurl spinning boomerangs—while you dodge and shoot the lethal birds. Managing to dispel the natives, you drift over the sea where the birds *still* have at you, in addition to gorillas who float by on rafts and fling coconuts at your airship. Bombing the fur and feathers from your foes, you are swept into a screen filled with madly spinning waterspouts, then over the desert where the birds return—deadlier than before—accompanied by rolling cannons which launch projectiles your way. Surviving all of this, you press on to the mountains, navigating over them while you avoid the last of the birds and settle down for a landing at Fort Freedom. But the commanding officer has it in for you: No sooner do you touch down than you are off again, tackling the obstacle course at increasingly difficult levels of play.

What games like *Pioneer Balloon* and other storytelling attractions are doing is reverting to the quest myth, the format from which much of our modern culture grew—sagas like *The Odyssey*, the epic of *Gilgamesh*, and Jason's search for the Golden Fleece. These games are not only providing fun, but paving the way for a new form of video "literature."



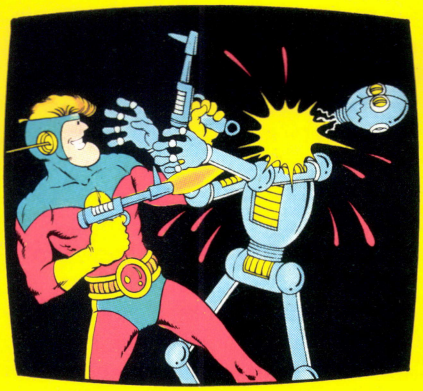
FANTASY

If you're anxious to pit yourself against an even more difficult video argosy, try your hand at Rock-Ola's *Fantasy*. This one is similar to *Donkey Kong* but *only* in that the action is inspired by a frustrated love affair. While in *Donkey Kong* an ape steals a girl, in *Fantasy*, tiny "Cheri" no sooner meets the hero on a tree-lined volcanic island (complete with a large, red roofed house) than she is kidnapped by pirates. The game is off and running! The hero, wearing cap and coveralls, chases the pirate ship in a hot air balloon, having to land on the poop deck while the pirates dot the sky with red hot cannon fire. The cannons don't stop as the next screen shows Cheri in a poison covered hut, four sword-wielding pirates trying to do the hero in. Ah, but the hero suddenly has a blade of his own, which the player uses to cut the villains while avoiding cannon fire and the poison door. But before the hero can reach his love, a devil bird whisks her onto the next screen.

Climbing back aboard the balloon, the hero has to chase the monster through the jungle—watching out for balloon-bursting devil birds in addition to big apes throwing explosive coconuts from the ground. Speaking of apes, the next screen has a scene which will thrill fans of *Donkey Kong*: Instead of steel girders, the hero has to race up logs, and instead of barrels he has to avoid coconut-chucking baboons and slippery foxes. And instead of *Kong* simply carrying the girl higher when the hero gets close, an African native abducts Cheri as her savior nears.

The hero has to go on yet another trek, this time on foot through the jungle, keeping away from the hungry tigers, killer trees, and angry natives. If the hero survives that trip, he arrives to see his love in a hot spot, tied to a stake over a roaring video fire. Out comes the hero's sword once again, but even after dealing with the cannibals a helicopter, of all things, whisks our heroine away. The trusty hot air balloon reappears to bear the hero back to civilization, where more helicopters await to try and shoot him down. The final act takes place on London Bridge where yet *more* helicopters and cannons try to prevent the reunion of the video-crossed lovers. If you have the patience, time, money and skill, the bridge will open and Cheri climbs aboard the balloon. And what is the player's reward for all this high excitement and soapy drama? Besides the satisfaction of beating the best Rock-Ola has to offer, you get to see big red hearts growing from the girl and hear her say "I love you," to the hero

However, happy endings aren't all the new games have in store. And if you love striking *new* graphics, deep and resonant sounds, not to mention pulsating and arresting new colors, the new crop of games supply all that and more.



ROBOTRON 2084

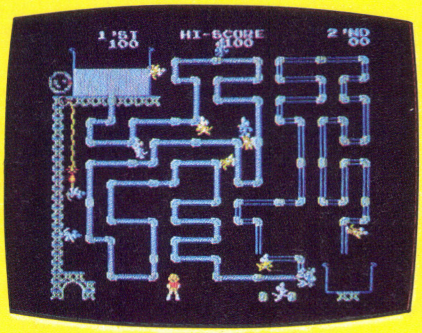
The most subdued of the razzle-dazzle breed is Williams' new star *Robotron 2084*, another in a string of winners designed by Eugene Jarvis, the man who gave us *Defender* and *Stargate*. What's refreshing about this and Jarvis' other games is the humanity he has built in. You don't just blow up the enemy because you feel like it. He and Williams supply a background and motivation.

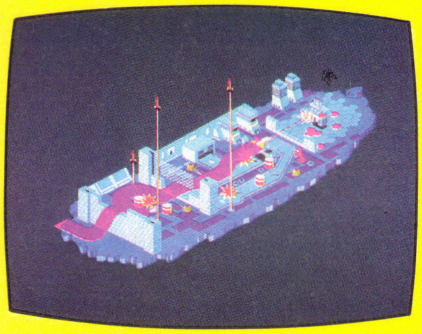
This time out, the year is 2084. The place is Earth, where robots have organized and turned against their masters. They plan to do two things next: First, to capture the remaining humans and turn them into androids and second, failing this, to obliterate the human race. There's only one thing that stands in the way of their plan.

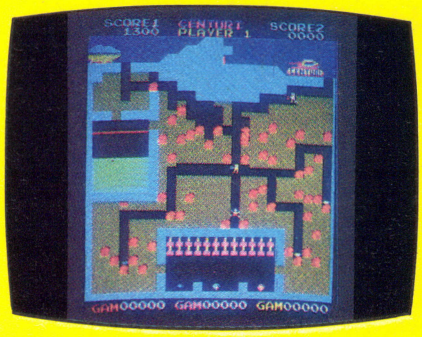
You and your quarter.

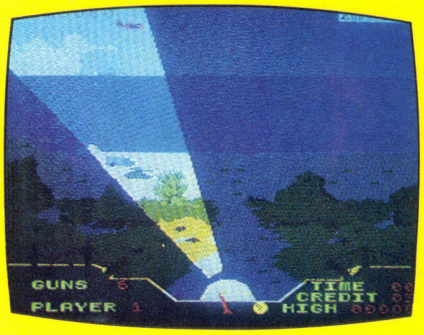
You've got two joysticks, and your mission—should you decide to accept it—is to use one to move in eight directions and the other to shoot in the same eight directions. *Robotron*, meanwhile, gives the player the additional chore of picking up a man who is carrying a briefcase plus a woman and a child who wander all over the screen. The enemy, not surprisingly, comes in all shapes and powers. "Grunts" can't shoot back but they'll follow you anywhere and their touch means death. "Hulks" can't be killed, only slowed or diverted from their task of running you or the innocent humans down. And when they accomplish the latter, all that remains is a skull-and-crossbone-shaped splotch. "Electrodes" just sit around, blocking your path until you disintegrate them with your laser gun. Unfortunately they'll return the favor if you even so much as brush one. "Spheroids" are pulsating circles which, if not destroyed immediately, give birth to killer "Enforcers" who spit "Sparks." You can destroy all of these things, but you'd better be quick about it, because they have a way of multiplying faster than rabbits. "Tanks" have a one track mind, and that is to launch "Shells" that bounce. The final cutie of the *Robotron* squadron is the worst of all: The "Brain," a frightening, swell-headed object with red veins in its giant skull. It can get you three ways: Electrocute you with its touch, fire hero-seeking Cruise Missiles, and turn the humans you're out to save into dreaded "Progs," automatons "prog-rammed" to destroy you.

Less fanciful is a game Gottlieb has cooked up, and which is out to cook you. *Reactor* is a game of nerves. You're looking down into a nuclear reactor whose core is growing bigger every second. Your job is to destroy its pulsing balls of atomic energy before the growing core destroys you. The only other charity the game allows you are decoys that can fool the enemy into giving off spurts of super-power which you can collect and turn against it. Should you fail to make it through fifty levels before the apocalyptic ending takes place, *Reactor* ends with "Meltdown."









Top Row: Precocious Mice give* Frisky Tom *a difficult time amidst a maze of pipes; the adventure of* Zaxxon *, a space game; inside an alien planet in* The Pit. *Bottom Row: the daylight and spotlight modes of D-Day.

From the depths of real dangers to the height of fantasy, the Sega/Gremlin Company saw to it that they would be the ones to push video games into another dimension of sight and sound. And they did it by changing just two things: the way you look at the screen and the way the screen looks.

As a videogame, *Zaxxon* is nothing new. You're in command of a fighter which must dodge rockets, destroy outposts, and duel enemy ships before its fuel runs out. But as an experience, the game is totally new and revolutionary. For one thing, your ship is not at the bottom of the screen. It is flying diagonally in what the company calls an "isometric perspective," which is its second extraordinary asset. The graphics create a hitherto unheard-of sense of depth. Exactly *how* Sega/Gremlin achieves this effect they won't say. That's not surprising; after all, it is these graphics which set *Zaxxon* apart from and above everything else in the field.

Your first stop during gameplay is the heavily armed floating fortress, a space platform which comes complete with walls, electronic barriers, missile silos, laser cannons, fuel tanks, and an enemy headquarters. All you've got is a joystick, an altimeter, a firing button, and—incredibly—a shadow. A shadow which gets smaller when you rise and larger as you dive. The ship is also buffeted visibly by shock waves whenever something explodes nearby. It is the little touches like these which make *Zaxxon* the kind of game arcade-goers are anxious to learn. . . and learn they must! *Zaxxon* throws everything at you from the space fortress to its defense armada to a giant robot. A hint: Don't be so completely hypnotized by the graphics that you forget there's a *war* going on!

Those are the highly-touted games now being shipped or readied for release over the next few months. But there are other videogames which may prove dark-horse favorites in the race for arcade-goer affection. *005* from Sega/Gremlin is one of the more hectic, as secret agent 005 steals an attache case, then must duck consecutively from a warehouse to an ice skating rink to a helicopter, dodging enemies all the while. Conversely, Centuri has a trio of games as different from *005* as they are from each other. The first is *D-Day*, in which you're defending a beach against attacks from land, sea, and air. The graphics are superb, as you look from a bunker across toned sands and shrubbery to the ocean and cloudy skies beyond; there is also a "spotlight" mode, in which the screen is dimly seen except where the searchlight's cone passes in its sweep of the terrain. Less visually striking, but somewhat less conventional, is *The Pit*. The player lands a spacecraft on an unknown planet and, with the aid of lasers, begins tunneling into the surface, looking for treasure hidden somewhere within the crust. But there are other not-very-amicable prospectors searching for the treasure as well.

Quite possibly the most bizarre game which is currently en route to your favorite arcade is *Frisky Tom*, from Nichibutsu. Tom is a plumber who must keep a network of pipes in good repair, lest the bathtub leak. But there are four pesky mice—Molar Mouse, Mean Mouse, Pyro Mouse, and Megaton Mouse—intent on blowing the pipes up, stealing sections outright, and biting Tom. Naturally, the pipes form a maze which complicates Tom's access to leaking areas.

Other games to look out for are *Tutankham*, a treasure-hunt in an Ancient Egyptian tomb; *Disco No. One*, in which you must avoid Ruffians and a Witch to win the Beauty Queen; *Dwarf's Den*, a match-the-comical-dwarfs challenge, something which becomes increasingly difficult as you proceed from the Lavender Gang all the way through the Violet Generation; *Snap Jack*, the adventures of a car which must race down dots while using its extensible legs to duck or evade dragons, comets, flying teapots, boots, houses, bouncing barrels, a pedaling cyclops, and other dangers; and *Dambusters*, based on the World War Two bombing raid which inspired the Death Star attack in *Star Wars*.

These are but a few of the adventures which will soon surface at your neighborhood arcade. Next issue: *More* upcoming games, but with a most unusual twist!

CONQUERING: DEFENDER!

No longer will the world's most popular space arcade game blast your ship to atoms!

ART BY COLIN HAY © 1982 YOUNG ARTISTS, LTD.

In the two years since *Defender* made its debut, it has taken in more money than any arcade game with the exception of *Pac-Man*. *Defender* was Williams Electronics' first entry into the videogame sweepstakes, and it barely made it to the marketplace. The company had been producing pinball machines for decades, and the specialists who test these games before they're released tried to convince Williams that *Defender* was too complicated to win a following. They were only partially correct: *Defender is* complicated. Eugene Jarvis, who invented *Defender*, thought the public was ready for a more complex videogame and he was right. The very complexity of play is what brings people *back* to the game!

Conceptually, *Defender* is simple enough. The player is the "Defender." He or she controls a spaceship which is capable of shooting deadly laser rays and exploding invisible "Smart Bombs." The ship flies above an alien planetoid on which 12 tiny "Humanoids" are hiding. Using various weapons, the Defender must protect these Humanoids from an alien invasion.

"Landers" are the most numerous of the six different aliens you'll find —or who'll find *you*—in *Defender*. They look like green tripods with a ball on top, and their sole function is to kidnap Humanoids. Landers do this simply by descending to the planetoid's surface and swiping Humanoids, who stand stationary and emit a shrill scream as they are being abducted. The Defender must either blast Landers *before* they steal a Humanoid, or take careful aim and shoot the Lander as it is ascending with a Humanoid. You don't want to shoot your Humanoids: They're your buddies. If a Lander succeeds in abducting a Humanoid and lifting it to the very top of the videoscreen, the Humanoid is "eaten" and the Lander immediately metamorphoses into a buzzing, hornet-voiced "Mutant."

Mutants are extremely difficult adversaries. They will track your ship as it flies around the planetoid, hidden from view, then suddenly attack you from above or below. It is, therefore, not a particularly bright idea to hover near the top or bottom edge of the screen. The best way to destroy a Mutant is to lead it into the middle of the videoscreen where you can reverse the direction of your ship and blast the alien with a laser ray. However, Mutants (as well as Landers) are quite adept at hurling tiny white "bombs" at your ship from any direction, and you must be able to dodge these bombs. The Mutants' bombs are as difficult to avoid as most of the other aliens' bombs. They can either fire a bomb at the player's ship with deadly speed and accuracy, or deposit a bomb almost at a standstill beside them, hoping the player will run into them.

What many players don't know, however, is that the Defender ship can *outrun* any bombs—whether they're thrown by a Mutant, Lander, or what-have-you. Keeping that in

Continued on page 56.

CONQUERING DEFENDER: STARGATE!

***Once you've mastered the rapid-fire, space-distorting challenge of* Defender, *it's time to out-play the more difficult menace of* Stargate!**

Just when you thought it was safe to venture into an arcade and tackle *Defender*, the wily Williams Company has unleashed *Defender: Stargate*, a sequel to the topflight moneymaker.

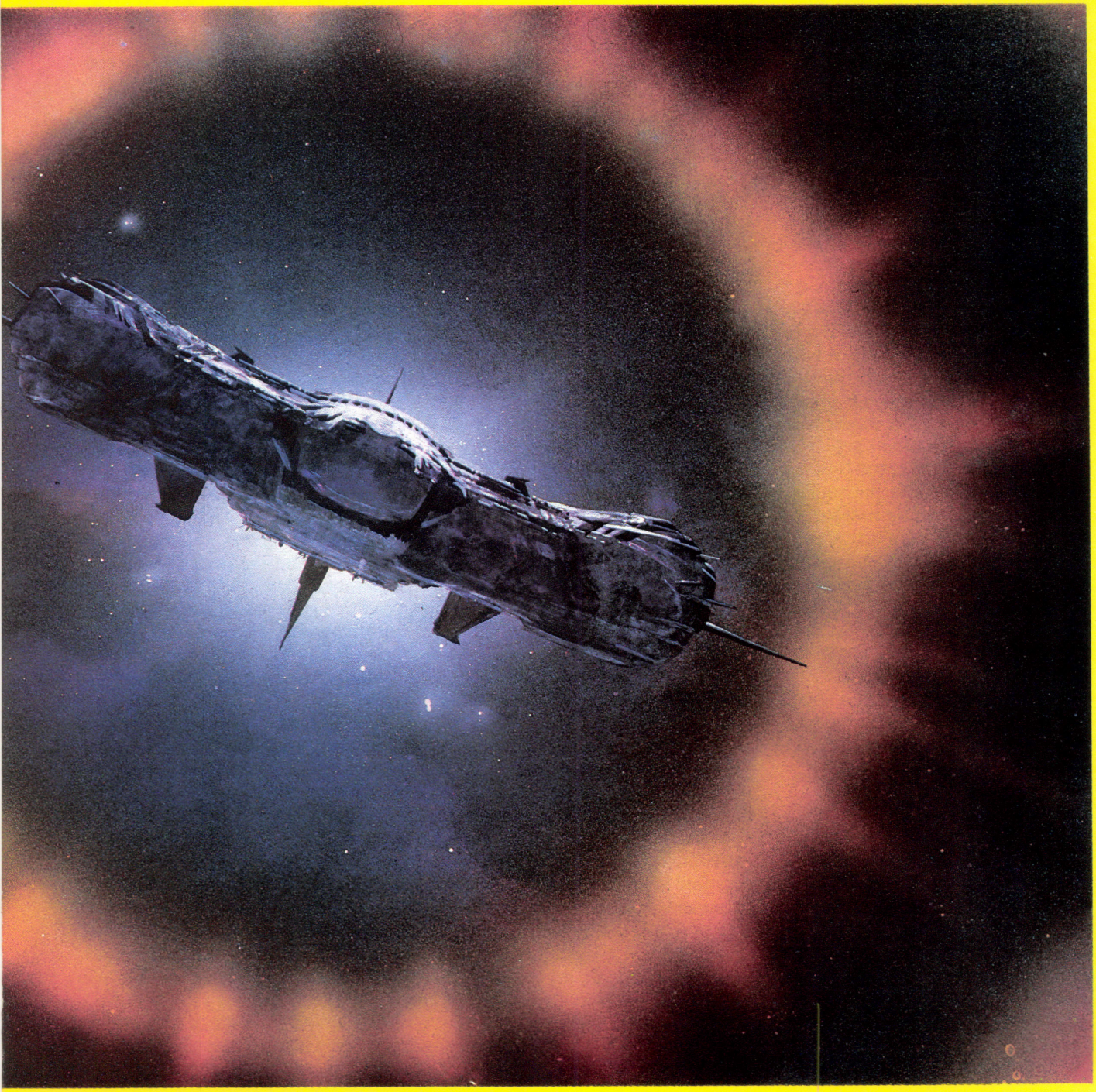
Why a sequel? Isn't the original difficult enough? Isn't the original exciting enough? Isn't the original still making money? The answer to all three is *yes*. But electronic games are like motion pictures: The biggest commercial successes always spawn a sequel or two. That's why your favorite arcades now offer *Ms. Pac-man*, *Cobra II*, and *Astro-Fighter* alongside the originals. In most cases the games are "new and improved"; once in a while, they're simply a restating of the original. Occasionally, the same "cast" from one game is dropped in the midst of a new situation.

Stargate is among the "new and improved" variety. The "mission" is the same as *Defender*: The player controls a spaceship equipped with various weapons, flies across the terrain of an alien planetoid on which 12 tiny Humanoids are hiding, and attempts to wipe out opposing aliens who are out to kidnap the Humanoids and dispose of the Defender.

In *Defender*, a total of six aliens besiege you; in *Stargate*, there are fourteen—the original six from *Defender* plus eight new ones. In *Defender*, you have six controls at your fingertips; *Stargate* adds a seventh control called "Inviso." Then there's the Stargate itself, a "cube" which shimmers in the alien sky. The Stargate serves no less than three functions, to be discussed a bit later.

The controls are set up the same as in *Defender*, *Stargate*'s Inviso control button located immediately below the Smart Bomb button.

As you can see from the illustra-



ART BY JOHN HARRIS © 1982 BY YOUNG ARTISTS LIMITED

tion, the player's right hand must control four different functions in *Stargate*; the left hand controls only two (the joystick and Reverse button). The Hyperspace button is still located midway down the operating panel and can't be reached unless you release one set of controls. One difference between the games is that the right hand must control the Smart Bomb *and* the neighboring Inviso controls. Thus, it's best to use the right index finger for Thrust and the middle finger for Fire, letting the right thumb hover over the Smart Bomb and Inviso buttons.

The Inviso shield is a cloak of antimatter which turns your ship invisible. It's quite a useful tool. But, like Smart Bombs, the Inviso is limited: you can run out of it. Press the Inviso button for as long as you want your ship to remain invisible. While cloaked, the ship can do everything it does normally, with the advantage that you can pass directly through aliens and alien bombs without being destroyed. Use the Inviso sparingly, however, because you'll *really* need it in later stages of the game.

As in *Defender*, *Stargate* awards the player an extra ship, an extra Smart Bomb, and a scoop more Inviso "antimatter" for each 10,000 points reached during gameplay.

The fourteen different aliens in *Stargate*, as well as their point values, are as follows:

Lander	150 points
Mutant	150 points
Baiter	200 points
Bomber	250 points
Pod	1,000 points
Swarmer	150 points
Dynamo	200 points
Space Hum	100 points
Yllabian Space Guppy	200 points
Firebomber	250 points

Fireball . . . . . 100 points
Phred . . . . . 200 points
Big Red . . . . . 200 points
Munchie . . . . . 50 points

As in *Defender*, aliens are born from other aliens. Space Hums are shot from Dynamos, Fireballs from Firebombers. Both Phred and Big Red release Munchies.

Stargate's Stargate is the game's most fascinating feature. As a "black hole tunnel" to another part of the planetoid, it can be beneficial as well as dangerous to the player. When the player is shriek-alerted that a Humanoid is being abducted by a Lander, a quick glance at the Scanner will show you exactly where the abduction is taking place. The player can fly across the planetoid *or* get directly to the scene of the crime by using the Stargate. The stellar phenomenon will "warp" the ship to where the Lander is ascending with the captured Humanoid; the player can then laser-blast the Lander and catch the Humanoid before it falls to the planetoid's surface. This is Function One of the Stargate. If by accident the player flies into the Stargate when no Humanoid has been abducted, Function Two takes place: the gate hurtles the ship to the opposite side of the planetoid!

The Stargate's most important function, however, is to allow the player to warp ahead to "future" wave without having to destroy all the aliens in the current wave. To accomplish this neat feat, the player must rescue four Humanoids or more from Landers and carry them all around. Once this minimum number of Humanoids has been rescued, flying into the Stargate will warp the player ahead—from Attack Wave one to wave four for example, or from wave two to wave five. (There can be no such warping after Attack Wave ten, however.)

For the first Humanoid rescued from a Lander, the game awards the player 500 points. Picking up a second Humanoid is worth a neat one thousand points, the third Humanoid valued at 1,500 points, and the fourth Humanoid—as well as any others picked up before entering the Stargate—tagged at two thousand points each! If you're being pursued by a Baiter or a few Munchies or Space Hums, all of which will be routinely following your ship, you may have to settle for simply releasing

***One of your enemy's many guises; the upright arcade version of* Stargate.**

the Humanoids on the surface of the planetoid. You *must* address immediate dangers before looking ahead: If your mind is hooked on getting the full complement of Humanoids, you may find yourself prematurely vaporized. In *Stargate*, the safest way to play is the best way to play.

Once you do manage to warp ahead by flying into the Stargate with at least four Humanoids onboard, you'll receive a bonus of two thousand points for *each* Humanoid, which is why players take the risk in the first place!

Stargate is played in waves, like *Defender*. In wave one there are Dynamos, Landers and Firebombers. Interestingly, the Firebombers during this wave *do not* hurtle any Fireballs at you, making them easy to dispatch. Also, the Landers move extremely slowly—much more slowly than in *Defender*. It's therefore not difficult to blast them, capture your falling Humanoids, and move into the Stargate. What you must watch out for in the first wave are the Dynamos. They should be destroyed on sight, before they release their Space Hums. Space Hums are very tiny and will actually follow your ship around the planetoid. Because they're so small, they are easy to run into.

Beginning with Attack Wave number two, the Firebombers will toss Fireballs at you; thus they become extremely deadly adversaries. Additionally, the Landers will move faster in this wave.

By the time you get around to waves three and four, the screen will be pretty cluttered with aliens, including Pods (which, you'll recall, contain anywhere from two-to-twelve Swarmers, Bombers, and the tiny Yllabian Space Guppies. The Space Guppies tend to travel together and shoot needle-thin "bombs" at your ship. (And, yes, the pun on Williams' competitor Bally was intentional in the naming of the Yllabians. . . .)

Even if you can't horde them, always be on the alert to *save* your Humanoids. As in *Defender*, if you lose them all before completing the first four waves, the planetoid will blow up and you'll find yourself alone in deep space facing the Alien Wave.

Attack Wave five is not a regular Wave; it's a battle between you and thousands of the tiny Space Guppies, along with a few Dynamos—which will release Space Hums *very* rapidly unless destroyed as quickly as possible—and Swarmers as well. The Space Guppy dogfight is where most *Stargate* players use the Inviso control with some frequency. By cloaking your ship and scooting back and forth amongst the clusters of Swarmers and Guppies, firing your laser ray all the while, this dogfight wave can be ended without much strain. After the last Swarmer, Dynamo, Space Hum or Guppie is destroyed during this wave, the player receives a 2,500 point bonus. Regular waves resume until you reach Attack Wave ten.

Wave ten is where the real trouble starts! You must destroy clusters of Firebombers which are constantly hurling Fireballs at your ship, and you must also shoot clusters of Swarmer-laden Pods. Smart Bombs work best during the Firebomber showdown, and if you have any Inviso left this will also come in handy dealing with the Pods and Swarmers. A bonus score is awarded for surviv-

Continued on page 59

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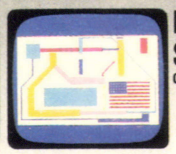

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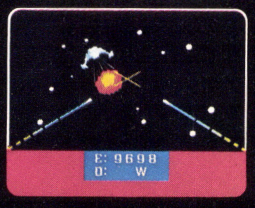

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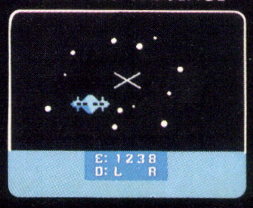

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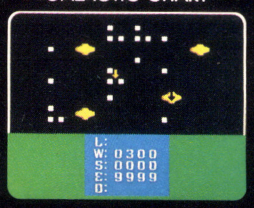

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COLECO

Continued from page 23

arcade game is longer than it is wide, unlike most televisions—and we can't very well ask people to put their TVs sideways to play the game.") *Cosmic Avenger* is not so quaint as *Lady Bug*, the player waging one-person war against an alien civilization. The object is to maneuver the ship over land and undersea, firing at the enemy's missile launchers, rockets, tanks, and submarines while dodging return fire and mines.

The games from Sega/Gremlin, arguably the finest in the Coleco repertoire, are *Turbo*, *Zaxxon*, and *Carnival*. The graphics in the first two games are, in a word, breathtaking. Conceptually, *Turbo* is not unlike *Night Driver* from Atari or Astrovision's *Zzzap*. The object is to drive a car as far and as fast as possible without crashing, the point-of-view being from the eyes of the driver. The difference between this game and the others is that the scenery is not a white picket fence rolling by with occasional Lego-like geometric blobs representing houses and trees. The scenery—city streets, country roads, bridges, and tunnels—is magnificently detailed, the perspective changing dramatically as the player speeds along. *Zaxxon* is even more impressive, a space battle which pits the player's starship against the combined forces of an extraterrestrial fleet. Unlike *Cosmic Avenger*, this is a "dimensional" game, seen from *over* the player's craft. The vessel actually casts a shadow on the planet's surface as it swoops in low to engage enemy space-planes, rising to avoid walls, force fields, and other obstacles. *Carnival*, less striking graphically, is nonetheless great fun. It's a shooting gallery game with a twist: when least expected, the targets come to life and eat the player's bullets!

The last and most unusual of the licensed games is a pair of Smurf adventures, featuring the little blue people of book and TV fame. In *Smurf Action Game*, the object is for an heroic Smurf to evade pits, bats, cats, and birds while he journeys to the castle of the evil Gargamel. There, he must climb to a ledge where a Smurfette is held captive. In the *Smurf Educational Game*, a

Frogger, *the popular arcade game, is also a Coleco table-top unit.*

Smurf guides youngsters to mathematical problems such as "3 mushrooms + 2 mushrooms = ?"

Tunnels and Trolls is another fantasy-oriented game, though not quite so lighthearted as the Smurf cartridges. Cut from the *Dungeons and Dragons* cloth, this program comes closer than any to capturing the role-playing aspect of *D & D*. Unlike similar games from Intellivision, Atari, Odyssey, and Astrovision, *Tunnels and Trolls* allows players—in the person of a gutsy dwarf—to get stronger and wiser as they move from adventure to adventure. The impetus to succeed and to continue the argosy is thus more satisfying than the shallow accumulation of wealth. The player's nemeses include dragons, giants, and other assorted monsters; the player is never obliged to confront any of them, though without engaging in battle there is no self-improvement.

***Coleco's table-top version of the arcade game* Donkey Kong.**

With the exception of *Dimensional Puzzles*—Rubik-like shapes which can be turned for viewing from any perspective—the remainder of the Coleco cartridges are videogame staples: *Head-to-Head Baseball*, *Head-to-Head Football*, *Fidelity's Chess Challenger*, *Fidelity's Las Vegas*, *Fidelity's Horse Racing*, and *Skiing*. Among all of the games, those which will be released in Atari format are the two Smurf cartridges, *Mouse Trap*, *Carnival*, *Venture*, *Lady Bug*, *Cosmic Avenger*, and *Donkey Kong*; for Intellivision, the Smurfs, *Carnival*, *Lady Bug*, *Cosmic Avenger*, *Mouse Trap*, *Venture*, *Donkey Kong*, and both *Turbo* and *Zaxxon*, whose detailed graphics remain impressive on the sophisticated Intellivision. To have made these two games for Atari would have simplified graphic details to the point of making it not worth the effort.

Despite the company's ups-and-downs over the years, Wall Street is predicting nothing but success for Coleco and ColecoVision. The independent brokerage firm of A.G. Becker is convinced that by the end of 1982 the videogames will have helped the company's income "surpass the $300 million mark," nearly double that of 1981, while Adams, Harkness, & Hill gushes about Coleco's "video system that has better graphics than Mattel [*Intellivision*] which in turn means that it has far superior graphics to Atari," and counsels its clients that "there is a lot of money to be made by investing in Coleco."

Arnold Greenberg is flattered, but realistic. "I don't think that in 1982 any company will displace a single sale of any other company. The whole videogame field will be production-limited, and the top companies will sell all they can produce." He believes that 1983 is when the battle for supremacy really begins, "because by then we'll all be able to get out as much software and hardware as we want."

Can ColecoVision realize its ambition to become the bestselling videogame system of the 1980s? The struggle will be uphill, Greenberg admits, but he is quick to note, "A company which was founded in the midst of the Depression, by a young man from Russia who hadn't a penny to his name, is not one to be intimidated by challenge."

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star words

A monthly column in which celebrities look at videogames!

Charlton Heston

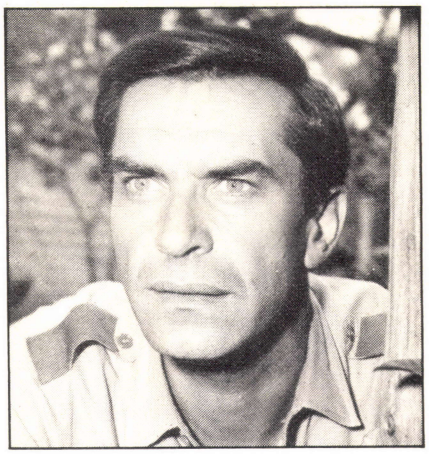
Star of *Ben-Hur*, and the upcoming *Mother Lode*

"It was about 1974, at the airport in Madrid, that I first played a Pong game. I had just finished making *The Three Musketeers* and was waiting for a plane. As it happens, I haven't played a videogame since. I find them quite interesting, but they fail to captivate me totally. I don't, however, subscribe to the fear many people have that videogames will destroy our young. They said the same thing about rock music and, God knows, if kids can survive that they can survive anything."

Dr. Joyce Brothers

Author and Lecturer

"I don't think videogames are bad at all. When they take kids away from schoolwork or bring them to a place where they can meet undesirable people, that's a debit. But videogames per se are not negative at all. They make youngsters conversant with the concept of computers, show them that the computer is a friend rather than an enemy; this is important, since we're living in a world where we must be allies of computers. Videogames show them that they can control computers, in addition to the training in mathematical concepts and improved hand-eye coordination. It doesn't trouble me at all that these games encourage aggression without mercy because it's a way of getting some of this aggression *out*. I'd rather see them aggressive without mercy in a game than beating up on one another."



Martin Landau

Star of TV's *Mission: Impossible* and *Space: 1999*

"My personal experience with videogames is somewhat limited, but I *do* think that we're developing a group of young people whose coordination is amazing thanks to these games. What fascinates me most are the computer games, where ten or fifteen people in different parts of the country can play games together. The only danger I see is that kids who can push buttons don't bother to learn other things, whether it's math or literature. As long as videogames don't take the place of these pursuits, I see nothing wrong with them."

U.F.O.

Continued from page 38

cated. The laser can also be used in very close quarters, as when you're surrounded by the enemy and are likely to hit a ship no matter which way you fire. Even then, however, ramming is preferable since there's no need to aim. You simply propel your ship against another, back off while the force field recharges, then hurl yourself at a fresh victim. It's a quicker, more efficient form of attack.

Whether shooting or ramming, you should always attack ships by getting beneath them. The explosions of every vessel radiate upwards, and the debris will take out any craft in the vicinity—your own included if you strike carelessly from the top. For that reason, go for the underbelly and always chase after groups. One ship detonating is a sure bet to destroy one or two more, their explosions likely to obliterate others in turn. It's also possible to ram two ships at once, but only if you strike them at exactly the same time. Hitting one lowers your force field; colliding with the other an instant later, while you are still unprotected, will send you to an early shower.

The Light-speed Starships are a tougher breed to knock off than the other two ships. They are swift and, more importantly, they're armed. They're also unpredictable, and can appear two in succession at the beginning of the game or not show up for spans of a minute or more. When they enter the screen, try to fly on a parallel course with them. The Starships are certain to get off two or three missiles per transit, but they can only fire diagonally, leaving you safe to shoot at them horizontally during their passage. You can, of course, hide behind a Drifter or allow your force field to protect you from a Light-speed assault. However, the craft is too great a bounty to let go without a fight.

Comment

Though a top seller since its release almost a year ago, *UFO*, with the demise of *K.C. Munchkin* (see this issue's *Eye On. . .*), has become the "flagship" game of Odyssey.[2] Like the court-enjoined muncher, *UFO* permits players to type their name on the screen, the computer retaining the information as long as that player's score remains the highest of a given session.

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Expo '82.

Continued from page 39

Just as the industry has grown, so has the Expo. Starting two years ago with seventy exhibitors, this year it welcomed over three hundred firms in Chicago's Hyatt Regency Hotel. In addition, it prepared over thirty seminars for Arcade people, talks covering such diverse topics as "Parts: How To Effectively Purchase, Stock, And Maintain A Good Parts Inventory," and "The Digital Multimeter, Unique Methods For Using This In Troubleshooting." Those conferences may not have been for every taste, but there was one seminar that almost anybody could understand—the first one. To quote the Expo directory handbook: "Early Bird General Session; The Manufacturers Face The Firing Line. Here's Your Chance To Question Our Industry's Leading Manufacturers."

It was an "early bird" session because it took place the evening before the Expo officially opened. But the representatives of the major manufacturers had been there for days anyway, preparing their various exhibits, so the convention's sponsors thought they'd make good use of their time. Several of these representatives later regretted the decision to participate.

Enough chairs had been set up to seat an army, and the place was indeed wall-to-wall humanity. The four manufacturing representatives congregated behind a microphone-covered table on the upraised platform.

The first hint of fireworks-to-come came when this reporter asked to tape the proceedings. That was fine with Joseph Dillon, Director of Sales for Williams Electronics, the manufacturer of *Defender*, *Stargate*, *Black Knight*, and others. It was all right with Ben Rochetti, who holds the same position with Stern/Seeberg, the makers of *Berzerk* and *Amidar*. It was also okay with Thomas Stroud, Vice President of Marketing for Cinematronics, the company behind *Space Wars*.

The only dissenter was Larry Berke, Director of Sales for Midway Manufacturing, among other duties the *Pac-Man* promoter. Given that his company has been so sought after by the press, he was reluctant to be quoted. That would imply cooperation with one publication and not others. Dillon, ever a diplomat, took the about-to-be contentious reporter aside to try and set the record straight.

"We used to be a private little group," he explained. "A couple of years ago, no one was interested in what we were doing. Now the press expect us to be spokespeople overnight. I, for one, am uncomfortable with that kind of pressure."

Essentially, said Dillon, the company's reluctance to say too much is based on three things. One: The industry has become enormously wealthy very quickly, and no one likes to discuss dollars and cents for-the-record. Two: The representatives do not want to embarrass their companies in any way. No tape, no embarrassment. And three: They are extremely cautious about revealing too much about their new machines in case the competition tries to undercut them. There's also the chance that the public might tire of hearing about a game and avoid it when it's finally released, or harbor expectations so high that the game cannot help but be a disappointment.

All these points were valid, but *Videogaming Illustrated* argued some points of its own. First: The panel could say what it did or did *not* care to say about money. We wanted to tape all the rest of it. Second: Tape recording eliminates the problem of misquoting. A reporter can't make up a quote with the evidence on tape. It was a means of protecting the speakers. And three: If a game is good, crude imitations and early word both will whet players' appetites. Maybe so, agreed Dillon. Nonetheless, the recorder could not be used.

Once the seminar got underway, so did the fireworks. The first question from the floor dealt with "speed kits," additions an operator can make to give new life to a game that's losing money. It can speed up or change gameplay so that customers will find it more challenging. There's only one problem: speed kits are illegal. The question? Why don't the manufacturers make legal versions?

Larry Berke swatted away the question as though it were a pesky mosquito. "It takes millions to produce games, and in some cases we pay royalties for licensing games created by outside companies. In either case, it takes a year to develop a

game." He implied that what the greatest arcade minds develop, test, revise, then market is not for a lone arcade operator to "improve." He went on to say that Midway would prosecute to its fullest ability anyone who made or sold speed kits.

The only problem with the heartfelt speech was that it didn't quite answer the question, a fact attested to by several voices in the crowd. The concensus seemed to be that, a creator's pride aside, since you can't beat speed kits, why not join them. Unfortunately, a direct answer was never to come. One operator was heard to grumble that manufacturer speed kits would never be issued because it made better business sense to sell a new machine to replace a dying one rather than perform a less expensive "face lift."

The next question concerned machines that weren't dying in popularity, only in body. The speaker complained that there are too many popular games which had less than perfectly put together parts. In fact, he noted, in some it was a simple matter for an enthusiastic player to rip a joystick right out of its moorings. What was being done to toughen machines? Tom Stroud fielded that question.

"Quality control is a problem everywhere, not just in amusements," he said sadly." We're all looking to correct that." The real problem, he mentioned, is having quality control on the quality controllers. He pointed out that the old phrase "good help is hard to find" is alive and well in the game industry. Larry Berke chimed in, "Manufacturing *is* less than perfection, but that's based on supply and demand. When produced in profusion, quality control is going to slip occasionally. We're all guilty of it, but we're trying to improve." Stroud added that the pressure to cut costs often lessens machines.

All but ignoring that confession, the attendees leaped on the Midway man's statement about the proliferation of machines. The operators just couldn't understand why they were forced to gamble thousands of dollars on a new machine that might die a dismal death *not* because it's a bad game, but simply because there are *too many* new games fighting for consumer coin. Couldn't the manufacturers get together and regulate the release of all new models?

The panelists responded to the statements with a combination of apology and disbelief. "The release of a game is something whose timing we can't predict or measure exactly," Joseph Dillon elaborated. "When and if an engineering team comes up with a game, there's a certain moment when it 'becomes soup.' We don't put it out to shorten the money-making life of any other game. We put it out because as near as we can tell, the time is right."

That wasn't enough to satisfy the operators. One member of the audience practically demanded that the amusement industry function like auto makers, that they release all their new models at one time a year. Dillon said that simply wasn't possible. "We all strive for different goals, and our engineering thoughts, processes, and timetables are different." Ben Rochetti took up the question.

Pressure groups abound! Law-makers are quick to pass negative arcade legislation!

"Without the engineers," he said flatly, "the companies would die. And without the companies, the industry would die. Now, you can't expect us to shelve our peoples' games and have them stay creative. They don't understand the business end of things. All they know is that they've poured their heart and soul into their machines. Given the situation, we do the best we can."

The best wasn't enough for this crowd. One operator wanted to know why all programs couldn't be done on cartridges, so that cassettes instead of entire machines could be replaced when a game's time had passed. Another wanted to know why the companies sold machines to anybody with enough money to buy them, diluting the arcades' market. One even wanted to know why the coin doors on all the machines couldn't be the same to facilitate both player use and collection.

The panelists were sympathetic but helpless to promise relief, or to assuage one fear which almost every owner had, that all the manufacturers would soon enter the arcade business the way Bally/Midway did by opening a chain of "Alladin's Castle" parlors around the country. If that were to occur, they reasoned, there would be no way for the "little guy" to compete.

Galloping to the rescue was the Atari cavalry. That company's Frank Ballouz came to replace Jack Gordon of Gremlin Industries, who had been held up at another meeting. He went to the platform and put more than one mind to rest.

"Atari was offered the chance to buy out the Bonanza Restaurant chain," he revealed, "but we turned them down. We are not running arcades at this time nor are we interested in so doing." Addressing the still-unanswered question of interchangeable games, he said, "It takes anywhere from three-quarters of a million to three million dollars to develop a new game. It also takes time. For *Space Duel*, we started testing in late 1980 for an early 1982 release. That means *everything* was checked. Lights, sounds, height, controls, *everything*." Ballouz insisted that he would not see that effort wasted by offering cartridges which could be yanked if the game didn't catch fire in a week.

That enlightened the nervous operators but didn't calm them down. Allowing Atari and the others their professional self-admiration, they wanted to know what the manufacturers were doing to ensure the future of the industry. Larry Berke maintained that Midway would continue to produce groundbreaking, earthshaking games, but Ballouz was the one to point the audience in a less partisan direction.

"Pressure groups are everywhere," he warned. "State and Federal legislatures are quick to see the worst and quicker to pass negative arcade legislation. We all have to work to change the image of amusement parlors. Make sure everything is slick at your own locations. That there are rules against smoking, swearing and loitering. Work toward involving the entire family. Make it clean and make it fun." Ballouz closed the eventful Expo seminar with the watchwords he felt arcades must live by if they are to survive. "Question what *we* do, question it in the spirit of cooperation. But just as important, check your own closets. Keep checking your own."

DEFENDER

Continued from page 45

mind, lure the Mutant into the middle of the screen simply by flying there. While the Mutant may be firing bombs, you can easily outfly and dodge them. Once you've managed to pass the Mutant itself, hit Reverse and fire away. The Mutant, while jiggling and jostling its way toward you rather mindlessly, will run into your line of fire.

For each Lander or Mutant you successfully destroy, the machine awards you 150 points.

Defender's next creature, a "Baiter" looks like a green, flying saucer. These hellbeaters—the most difficult alien to destroy—will attack the player only when the machine has decided it's taking the player too long to destroy all the other aliens in any given "attack wave." They zip and whip around your ship faster than any other object on the screen. In fact, a Baiter is the only alien which can fly faster than the Defender's ship. As they near your vessel they will discharge a trail of those tiny white bombs. And the longer you take to finish off an Attack Wave, the more Baiters the machine will send in to destroy you.

Like any other alien in *Defender*, Baiters can be destroyed with a quick laser blast. But they are the most difficult objects to hit because of their quick, unpredictable movements. When players are unlucky enough to have a Baiter on their tail, the best thing to do is get out of the way *fast!* Baiters will come in one at a time (the player will first hear a distinct "warning" that sounds like "Zzziiiiiiiiiippp!"). The Baiter will come from *behind* the ship but quickly surpass it, meanwhile firing shots in all directions. The Baiter hesitates, or "hovers," around the ship. Its bombs are not very accurate, but it fires so many of them that the player stands a good chance of running into one accidentally. Additionally, if the player stops Thrusting completely the Baiter will automatically ram it.

If you find yourself the object of Baiter pursuit, wait until it gets in front of your ship, then press the Reverse button twice. This will momentarily confuse the Baiter, leave it hovering in space not doing much of anything. However, this behavior will *not* last long. Seize that fleeting moment to zap the Baiter with the Fire button, then proceed to destroy whatever is remaining in the current Attack Wave.

If you don't manage to destroy the first Baiter—or if you destroy it but don't finish off the wave right away, a second Baiter will come into play, and sometimes a third. When the ship is surrounded by Baiters, it's highly likely one of their not-very-accurate bombs *will* hit your ship. You can take a chance and jump into Hyperspace, but you might blow up on re-entry. It's best at this point to Smart Bomb the clutch of Baiters.

One last word on Baiters: If a Baiter comes in when you have your final alien or two of a wave in sight—that is, they are on the main screen—*ignore* the Baiter and concentrate on blasting the last alien(s). *You don't have to destroy a Baiter to finish off an Attack Wave.*

The Hyperspace button is misplaced! The better Defender players ignore it completely!

Each Baiter you *do* manage to destroy will garner you 200 points.

"Bombers" are worth 250 points, but they're a lot easier to hit than most of the other alien creatures. They simply drift up and down diagonally and it is fairly easy to match their flight path, draw a bead, and dispose of them with a laser blast. Bombers look like dark-blue boxes, travel in threes (or multiples thereof in later stages of the game), and *don't* shoot bombs at you. What they *do* is deposit a string of mines in their wake as your ship approaches. These "x" shaped mines fade after a few seconds, but in the interim the Defender must maneuver around them. Running into a Bomber's mine will destroy the ship.

For a cool 1,000 points, blast a "Pod"—but be ready to deal with anywhere from two-to-twelve "Swarmers" which will be hiding inside the Pod. The Swarmers are tiny orange saucers which fire even tinier white bombs at your ship. Each Swarmer is worth 150 points, but because of their size they're difficult to hit.

In order to defend yourself and the Humanoids against this bevy of alien invaders, *Defender* provides you with no less than *six* different controls.

The player's left hand must control both the joystick as well as the Reverse button, while the right hand must control Thrust, Fire, and the Smart Bomb. The Hyperspace button, as you can see, is oddly misplaced. It's completely out of reach, and to use it you must remove a hand from one set of controls. It's usually better to let go of the joystick and Reverse controls but, as will be explained in a moment, the better *Defender* players ignore the Hyperspace control anyway.

Despite the large number of controls in *Defender*, working them quickly becomes second nature. With patience and practice, supported by quick thinking and good hand-eye coordination, just about anyone can begin racking up respectable scores on the machine.

Constant pressure on the Thrust button will propel your ship forward at a steady speed. Lift up on Thrust and the ship will slow to a halt (it won't stop dead in its tracks). Short taps on Thrust will lurch the ship forward in jumps. There is no "best way" to fly the ship; all depends on circumstance, which constantly changes during play. If, for example, a Humanoid is suddenly snatched by a greedy Lander, you'll want to get to the scene as quickly as possible; uninterrupted pressure on the Thrust button seems ideal. However, there may be a hidden Mutant or two and you chance running smack into them flying at top speed. Many *Defender* players therefore find it helpful to hit the Thrust and Fire buttons simultaneously in quick *taps*. The ship will move forward at a swift but not reckless speed, with a laser ray as its deadly "headlights".

The Fire button fires a horizontal beam approximately 1/8″ thick from the bow of the Defender's ship. Thus, your target must be located at the same fore or aft level as the ship. The laser is not a continuous-action device; one press on the Fire button releases one laser beam. However, *Defender* does give the player an advantage over some of the other

videogames: You can press Fire as many times as you like and as rapidly as you like without running out of firepower.

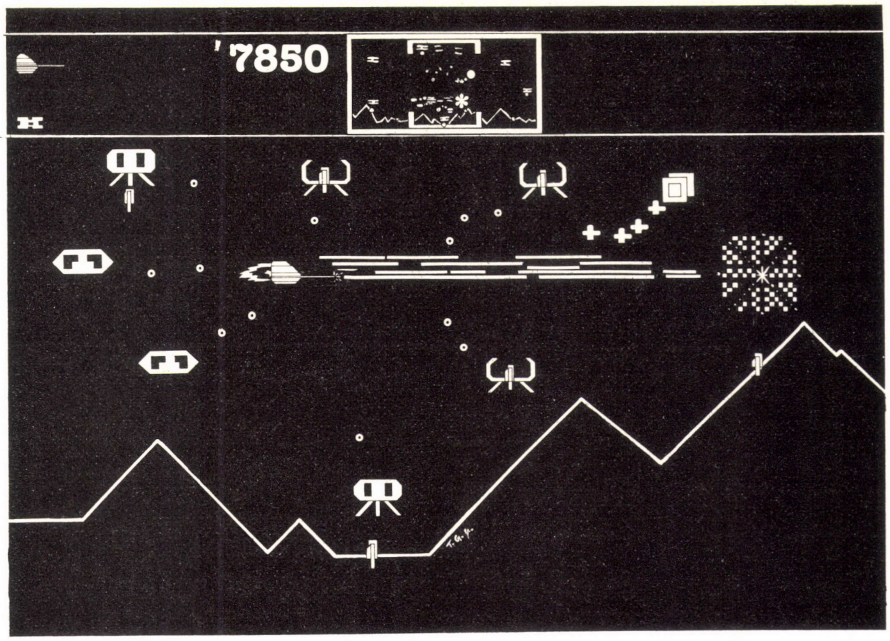
At the beginning of the game, the player has one Smart Bomb for each ship. For most machines this means three ships and three Smart Bombs, but some Defender machines start out with four or even five ships and Smart Bombs. When a player's ship is destroyed, that ship's Smart Bomb survives and can be used at some point later in the game. Whenever possible, Smart Bombs should be saved for stressful situations such as the difficult Attack Waves or assault by a tangle of Pods. When the Smart Bomb button is pressed, *all* the aliens in view on the main screen are automatically destroyed. (Scanner aliens are not affected; see below.) The Smart Bomb won't hurt the Defender's ship, but neither will it destroy any bombs the aliens might have ejected prior to being obliterated by a Smart Bomb.

Players are awarded one additional Smart Bomb and an additional ship for each 10,000 points reached during game play. A player can stockpile any number of Smart Bombs or ships, though no more than five ships and Smart Bombs will be displayed alongside the player's score. Any above that total are retained in the game's computer-memory.

While the Thrust button controls the Defender's lateral speed and movement, the joystick dictates the ship's vertical movement. The instruments enable you to move the ship up or down without moving horizontally at the same time (not an especially profitable manuever) and the joystick will even let you guide the ship below the planetoid's surface. Combining the Thrust and joystick controls, you can steer your ship virtually anywhere on the videoscreen.

The Reverse control button is an all-important device that allows you to fly in the opposite direction without a moment's hesitation. However, when Reverse is activated, the ship automatically moves slightly *backwards* at the same time it "flips over." Be careful! If you see an alien approaching from the rear and decide to flip and face it, the ship's brief backsliding motion might sled it right into the alien!

Hyperspace, as mentioned earlier, has more going against it than for it. This difficult-to-reach control will "dematerialize" your ship and "rematerialize" it somewhere else on the alien planetoid. This trick can be helpful if you are surrounded by buzzing Mutants or Baiters, but the ship may just as well incorporate *on* an alien, and you'll have the dubious privilege of seeing your ship splatter into 128 different pieces! Even the machine's instructions tack a strongly worded warning onto the explanation of the Hyperspace button. Because of the blind-collision risk, experienced Defender players use this control only in the most *extreme* circumstances.



Like any good commander about to do battle, study the lay of the land and learn to recognize your enemy!

Above the main screen is a small display screen called the Scanner. The Scanner is a glorified radar which reveals the planetoid's terrain in its entirety. The display portrays the large videoscreen as a bracketed panel in the center, the rest of the Scanner revealing the landscape and objects which are in front of your ship as well as behind it. Humanoids are represented by light-blue "chips" sprinkled about the planetoid's surface; the location of every alien and its movements is likewise shown on the Scanner, each alien represented by its own colored shape or symbol. The function of the Scanner is twofold: It alerts you to the presence of aliens beyond your immediate field of view, and permits you to see exactly where the Landers are abducting your precious Humanoids. It's important to maintain a constant watch on the Scanner, but keep in mind that this device does *not* show any of the small, white bombs ejected by aliens, nor any of the "mines" left behind by floating Bombers.

At the end of each Attack Wave—that is, after the destruction of all the aliens in any wave, excluding Baiters—the player is awarded bonus points. You have already earned five hundred points per Humanoid rescued, plus five hundred for each you set safely on the ground; in addition, you've scored points for blasting aliens. Now you receive bonus points, calculated by multiplying the wave number first by one hundred, then by the number of surviving Humanoids. Thus, if at the conclusion of Attack Wave one you have nine Humanoids left, you'll receive nine hundred bonus points (1 x 100 x 9). If you have six Humanoids left after the third Attack Wave, you'll receive 1,800 points (3 x 100 x 6).

With each succeeding Attack Wave, play becomes more difficult. There are greater numbers of each alien to destroy, and the Landers attempt to steal your Humanoids at an ever-faster pace. If the player is unlucky enough to lose *all* the Humanoids before any Attack Wave through wave four is concluded, the player will be faced with the most horrendous situation in *Defender*: The "Alien Wave"! When the last Hu-

manoid is eaten by a Lander, the planetoid blows up and the player's ship is suddenly, frighteningly alone in deep space—alone, that is, except for the aliens which remain from the current wave. They attack the player with terrifying ferocity, which means that the Defender faces Pods, Bombers, Swarmers, and up to twenty Mutants all at once.

Player's stand a fair chance of surviving an Alien Wave if, before the planetoid explodes, there aren't many aliens still alive. A glance at the Scanner will show you how many aliens—mostly Mutants—are massing and moving toward the ship.

If there aren't many aliens, and your aim is sharp, you can survive the Alien Wave by picking off the aliens one by one. If there are many, you can divide them into two groups by pressing the Reverse button a couple of times. Then try your luck at one group.

When a crowd of Mutants surrounds your ship—you can't help but notice: It'll sound like you walked into a beehive—the only thing to do is Smart Bomb the Mutant mass. You'll never gun them all. If you're out of Smart Bombs, all you can do is Hyperspace away and pray for safety! Another trick is to fly across the bottom of the screen during an Alien Wave. You'll avoid the Mutants, though at some point you've *got* to surface to blast some aliens. Baiters might also enter the Alien Wave Arena if (a) you don't finish off the Alien Wave, or (b) the aliens don't finish *you* off first.

Since an Alien Wave will only take place when your final Humanoid is kidnapped and eaten by a Lander, you can postpone or entirely avoid this nerve-wracking wave by catching your last Humanoid and continue around the planetoid, wiping out aliens, while the Humanoid hangs onto your ship. Your Humanoid will not be destroyed by any alien or alien bombs; they can pass through it. Further, if your ship is blown up by an alien or bomb, the Humanoid survives. It will show up back on the planetoid's surface as the machine gives you your next ship. You can catch as many falling Humanoids as you like before depositing them on the surface of the planetoid or carrying them around with you. You'll only actually *see* one hanging onto the ship, but any others you catch *are* there. The major drawback to this policy is that if your ship *is* destroyed before you return Humanoid cargo to the planet, you do not get the points that maneuver would have earned you.

Of course, Alien Waves *can* be avoided. If you protect your Humanoids—even if there's only *one* left—and manage to finish Attack Wave four, *Defender* begins the fifth Attack Wave with a new set of twelve Humanoids to defend. One of the game's few charities is that every fifth Wave begins with a fresh batch of Humanoids. Another, less risky way to skip the Alien Wave is, again, by holding onto a Humanoid until the wave is completed. To do that, you must first become adept at *catching* Humanoids when they fall.

Humanoids plunge planetward when you blast any Lander which has abducted one. The Lander will explode and the Humanoid drops rather slowly to the ground. Immediately move your ship to beneath the drifting Humanoid; the figure will "jump onto" your ship. You can then lower your precious cargo safely to the surface—even while thrusting your ship forward. Once your ship touches the terrain the Humanoid will hop off, allowing you to continue battling the remaining aliens. This entire episode will garner you a neat 1,150 points: 150 points for destroying the Lander, 500 points for catching the Humanoid, and 500 points for getting the poor creature back to the surface in one piece! There's another way to save a Humanoid if you're quick enough, even though this particular maneuver will award you only 250 points. If you are able to blast a Lander just as it is taking off with a Humanoid, the Humanoid will usually fall safely to the ground by itself. You must be a good judge of distances to make this play work: If you allow the Humanoid to drop from a blasted Lander that's more than one inch above the planetoid's surface, that tumbling Humanoid will explode when it hits the ground! If in doubt, it's usually best to go for the catch-and-return maneuver. If you're just beginning to play *Defender*, you may become frustrated pretty quickly at the machine's capacity to dispose of your ships rather rapidly. As with all video games, practice will inevitably increase your skills.

The Aliens

as they appear on the videoscreen!

LANDER
It always drops from the planet's sky.

MUTANT
The hybrid formed by Lander and Humanoid.

BAITER
It appears if a wave stays too long.

BOMBER
Slow; but its discharge could kill you.

POD
When shot, it showers you with Swarmers.

SWARMER
A red peril that goes right after you.

DYNAMO
A checkerboard that fires Space Hums.

SPACE HUM
A mini-Dynamo which tracks your ship.

SPACE GUPPY
Fires long needles that are lethal.

FIREBOMBER
Vertically mobile, shoots Fireballs.

FIREBALL
Destructive red and yellow bombs.

PHRED
White and violet munchie-hoarder.

BIG RED
Yellow and red, same duties as Phred.

MUNCHIE
One of the green babies of Phred.

stargate!

Continued from page 48

ing the Firebomber showdown.

The Yllabian Space Guppie dogfight repeats at Attack Waves fifteen, twenty-five, thirty-five, and Firebomber Showdown at waves twenty, thirty, and so on.

Thus far, we have talked about confronting masses of aliens. There's a reason for this. Unlike *Defender*, which reaches a certain level of difficulty and then levels off, *Stargate* continues to get faster and more challenging with each succeeding wave. Quite often, it's *best* to deal with hordes of the enemy, fly into a virtual zoo of *Stargate* aliens, reverse the ship a couple of times to upset any Dynamos and get them to release their Space Hums, then Smart Bomb the whole mess of them. However, you will have to deal with some aliens individually. While any alien can be destroyed with a simple laser blast, it's not always easy to take aim: a Firebomber may simply drop rather than fling a Fireball on your ship when you're not paying attention, to name just one hazard. Thus, here are the best ways to do them in.

Landers: Blast them with your laser ray, preferably as they are stealing your Humanoids. That way you can catch the falling Humanoid and either hang onto it or return it to the planetoid.

Mutant: Mutants are difficult creatures, since they enjoy hiding offscreen then suddenly attacking your ship from above or below. Whenever possible, lead them into the middle of the screen, reverse direction quickly, and blast them with fire from your laser.

Baiter: Hopefully the player can avoid dealing with baiters, which can fly faster than the Defender's ship. Baiters *only* arrive, again, when the machine decides it's taking the player too long to finish off a Wave. When confronted with a Baiter and its tiny white bombs, punch your reverse button twice; that will confuse your adversary momentarily and, in that instant, you can take aim and destroy the hovering Baiter with a laserblast.

Bomber: Collision with a mine left in a Bomber's wake as it floats lazily up and down across the video screen will destroy your vessel. You can get rid of Bombers fairly easily by darting under or over them, reversing direction, then striking them with your laser, moving your joystick to keep on the same level with them.

Pod: These shining purple stars don't do anything except float around the planetoid. Shoot them, however, and they'll release their population of Swarmers. Whenever you see a cluster of Pods, Smart Bomb the group immediately to significantly increase your score.

Swarmer: Offspring of a Pod, Swarmers travel in groups as in *Defender* and, diminutive as they are, they fire those still smaller white bombs at your ship. Unless you're pretty adept with your laserblasting and ship maneuvering, it's safer to Smart Bomb the whole crowd of Swarmers at one time.

Stargate gets faster and more challenging with each succeeding alien wave!

Dynamo: Dynamos should be dealt with immediately on sight. Before they can release any Space Hums. Dynamos are easily blasted with laser fire.

Space Hum: These extremely small creatures look like baby Dynamos. They follow your ship all over the place until you either destroy them or forget they're there and self-destructively run into them. Blast them with your laser as soon as they are released from a Dynamo. If a few Space Hums are on your tail, it's probably safer to Smart Bomb them.

Yllabian Space Guppy: Despite their unimposing size, the Guppies are easy targets since they travel together. Stay a safe distance from them—you don't have to chase them, they'll come to *you*—and laserblast them while shifting the joystick back and forth. If you happen to miss a few, reverse direction and blast them the next time around, always remaining wary of their needle-like bombs. In later waves you may have to Smart Bomb a group of Space Guppies if there are too many to deal with effectively using the laser ray.

Firebomber: Easy to destroy with the laser during Attack Wave one, but from then on they'll be tossing Fireballs from the instant your ship approaches them. Firebombers tend to hover near the top or bottom of the screen and they spin round and round. Don't fire at them when they're at the bottom of the screen; you may inadvertently destroy one of your own Humanoids. When they are at the top of the screen, maneuver your ship up and down alongside them. You should be able to shoot down the Fireball that comes at you, or you can dodge or Inviso your way clear. Your next shot will get through to the Firebomber itself before it has a chance to emit another fireball. If you run into a *cluster* of Firebombers, play it safe and Smart Bomb them all.

Fireballs: Released from Firebombers as your ship approaches them, these fiery orange balls will either streak directly toward your ship or be lightly tossed by a stray Firebomber. Fireballs are not easy targets, so don't hang around Firebombers tempting them to throw a few your way. Get rid of the Firebombers themselves as described above. With a bit of luck you may also hit a fireball and destroy it—but don't encourage such a dangerous showdown.

Phred: This three-sided open "box" is like a Baiter; that is, it only appears when the machine decides the player is taking too long to finish off a wave. As soon as a Phred appears, use your laser ray to destroy it without hesitation. Phred will always approach from behind, so you'll have to hit Reverse to destroy it. Ignoring Phred will be taken as an insult, causing the alien to get really mean and release some Munchies

Big Red: A "cousin" to Phred, Big Red can also release Munchies. You should treat Big Red just like Phred: destroy it at once!

Munchies: These offspring of Phred and/or Big Red will follow your ship faster than the Dynamos' Space Hums. Munchies are tiny and come in assorted colors. They are usually released so fast you can't get rid of them all with blasts from the laser. You'll probably have to use a Smart Bomb on them, but be sure to get parent Phred or Big Red in your sights as well, so neither can spit out more Munchies to plague you.

eye on

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Continued from page 10

information which would have helped get the games out last year. But Intellivision turned them down, Parker Brothers went ahead with their Atari-oriented plans, and the company will only be releasing a few of their cartridges for Intellivision, none of those until next year. As for other systems, "We're keeping an eye on ColecoVision," Stearns says, "though with their Atari adapter, our cartridges will work in their system anyway."

Like Coleco (see this issue's *In Focus*), Parker Brothers plans to stick with licenses for the forseeable future. The company is closing negotiations on several other arcade licenses, and according to a spokesperson at Marvel Comics, so "delighted" is the publisher over their association with Parker Brothers that other superheroes are "likely" to be included in a future lineup. "Licensors are only too happy to be teamed with a company owned by General Mills," Stearns points out, "particularly when they know that we can always do promotions on the back panel of Cheerios." Such exposure would obviously benefit the property being licensed as much as it helps to sell the cartridge itself. Stearns assures us, however, that the General Mills connection will "in no way lead to a Betty Crocker game. Not yet, anyway."

THE ROLLS ROYCE JOYSTICK

Forget your purely functional joystick! That old fist-filler has a sleek new rival in the videogame hardware wars. Zircon International, which has taken over the seven-year-old-and-floundering Fairchild Channel F video entertainment system (story next issue), has also made the Video Command Joystick available to Atari console users.

The Zircon joystick is almost twice the price of an Atari joystick, and takes some getting used-to. Instead of brute force, one must finesse the knob-joystick combination around. Too, the action button has been combined with the joystick: One pushes the entire fixture down to fire. This can be a disastrous function for, while depressing the joystick, the player may also accidentally shift it left, right, forward, or backward thus changing the placement of the gun, spaceship, etc., on the screen.

Having made this observation, it should be noted that once the player does master the Zircon Video Command Joystick, it's an unquestionable videogaming asset. The instrument offers not only multi-directional control —including forward and backward at forty-five degree angles—and the action button mode, but clockwise and counterclockwise rotation as well. Further, because of it's streamlined construction, this joystick is not as easy to manhandle as that of Atari, and, thus, is less inclined to break down. Zircon may have fallen prey to hyperbole when comparing the joystick to the controls in a jet fighter, but there is no question that it is the most elegant and effective such tool currently on the market.

Zircon also offers Alpha Command Paddle Controls and Video Stick Controls for computergaming.

ATARI FINDS THE LOST ARK

This November, Atari will be releasing a new home videogame based on the hit motion picture *Raiders of the Lost Ark*. The only information that Atari personnel would reveal is that the game will be released in just one format: for their home video system. There will be no arcade version, nor a computer package.

The big question, of course, is what the game will be about. All that anyone from Atari would say is that it will be "based on adventures from the film." Our source revealed that they are trying to get a "proper bullwhip" for use in the graphic presentation. The theme music will "most likely" be used to introduce the game.

Over at Lucasfilms, which licensed the property to Atari, only fractionally more information was available. The more horrendous images—melting heads and writhing piles of snakes—would not be present, a marketing representative told *Videogaming Illustrated*, and the object "will be just what it was in the movie." One must conclude, therefore, that the game will be reminiscent of Atari's *Adventure*, as a player takes the part of Indiana Jones and faces one peril after another in search of the Ark of the Covenant. Based upon what Atari and Lucasfilms both reported, the Ark will remain closed even when it is found. After all, there has yet to be a PG videogame!

ART IMITATES LIFE

CBS Theatrical Films has begun production on a ten million dollar motion picture called *Spaceblasters*, an arcade adventure with a twist. As Executive Producer David Obst tells it—"with reservations," he assures us, "because it's the kind of idea someone can knock-off pretty easily"—*Spaceblasters* is the saga of a bunch of kids who are experts at different videogames. As a result of their skills, the youngsters are called upon to save our planet when the earth is threatened by real-life counterparts of the videogame invaders.

Written by computer specialist Bill Kroyer, *Spaceblasters* will open in theatres nationwide during the summer of 1983.

eye on

SO THAT'S HOW THEY DID IT!

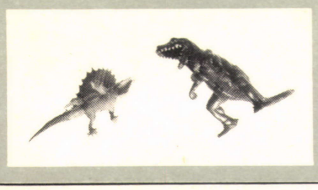
Imagic has won generally enthusiastic notices for its new Atari-compatible games, praise which *Trick Shot*, *Star Voyager*, and *Demon Attack* richly deserve.

However, the dogged investigative reporters at *Videogaming Illustrated* have discovered that this multi-million dollar company is not above some cost-cutting here and there. To wit, the package for *Demon Attack*.

Take a good look at those awesome monsters drifting through star-studded space—then feast your eyes on the rubber dinosaurs our staff picked up for $1.69 at a local toy store. *Comme deux gouttes d'eau*, as they say.

"All artists use models," an Imagic staffer dismissed our hard-hitting scoop. "These just happened to come cheaper than most."

True enough. Besides, live dinosaurs are at a premium these days.



UNSHEATH YOUR JOYSTICK!

Videogaming may be the entertainment medium of the future, but manufacturers are dipping into the past for their subject matter.

Soon to appear at your local videogame dealer are the exploits of the barbarian Conan and the hostile souls of the planet Krull.

Conan is coming from Astrocade (formerly Astrovision, and before that Bally), based upon the sword-swinging King of Aquilonia, a character created in 1932 by author Robert E. Howard. Krull will be an Atari home game, D. Gottlieb & Co. producing arcade video *and* pinball attractions. Krull is inspired by the Columbia science fantasy film due to be released in the Summer of 1983.

TOP THAT!

In case you've delusions of adequacy when it comes to *Pac-Man*, take a peek at the work of Eric Schwibs, a student at Buffalo State College.

Playing the deluxe version of the game—in which the dots turn to poison at various times, among other delightful "improvements"—Schwibs tallied a mind (and hand) boggling 2,935,590 points in a game lasting over eight hours. The previous record in deluxe *Pac-Man* was a paltry 2,700,000.

Schwibs' bout ended only because the machine couldn't take the strain and literally broke down. The computer science major is confident that had the game not gone to pieces, he could have beaten the record of 3 million points scored on regular *Pac-Man*.

THE GLITCHERY

In a world where Washington's Birthday is celebrated a week early, and Columbus Day sails east until it hits a Monday, it should come as no surprise that the people of Activision hold their office New Year's Party in April.

One expects a measure of eccentricity from the crack creative personnel which gave the world videogames about a mad bomber and daredevil chickens. However, Activision publicity staffer Dianne Drosnese insists that there's a reason for the celebration.

"There isn't a real good party-holiday in April," she laments, "and besides, that's when our fiscal year ends."

Fittingly, the celebration is held on April Fool's Day.

Speaking of Activision, Customer Relations Representative Jan Marsella insists the following letter is authenic. It arrived vis-a-vis the membership emblem offered to *Freeway* gamers who score twenty or more points and send in a photo of the screen: "I could have shot that chicken. Not one picture turned out. Would you consider letting me join the 'Save the Chicken Foundation' anyway? I have suffered enough tragedy in my life. To be rejected by a chicken club would be the ultimate disaster." Ms. Marsella assures us that the pullet pro was duly enrolled.

facetiae

The column which dares you to identify five popular home videogames based on the following verse.

I
He starts and ends the same;
Between he's quite unique.
If searching helps him not,
Then left or right he'll peek.

II
With arms upraised he'll cheer,
Presuming he can stand.
If not, his one-word script
Will flash where he did land.

III
Its star chimes like a bell,
She's colored like the sun.
She never calls it quits,
And can she ever run!

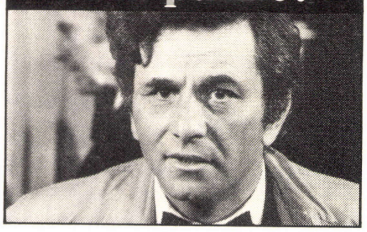
IV
Two breeds of creature here,
Though from a common past.
Ascending, falling—oops!
The shaggy beggar's fast!

V
By land, by air, by land.
By tread, by wing, by wheel.
Two different wars, a road,
Are all part of this deal.

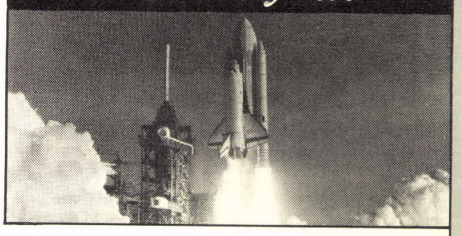
Answers:
I: *Superman*, II: *Human Cannonball*, III: *Freeway*, IV: *Monkeyshines*, V: *Triple Action*

Do you find movies dull?

Is prime time TV a puzzle?



Does reality fail to move *you?*



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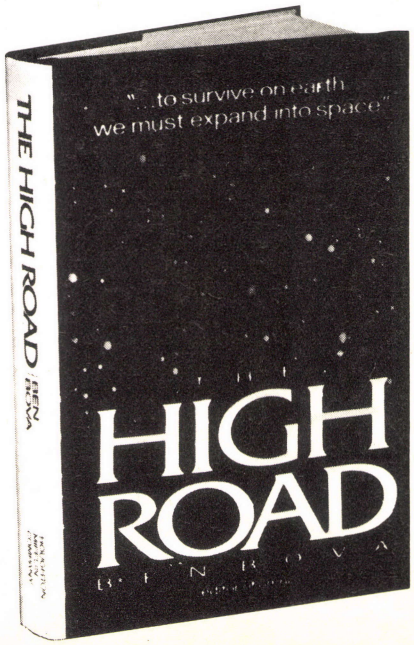

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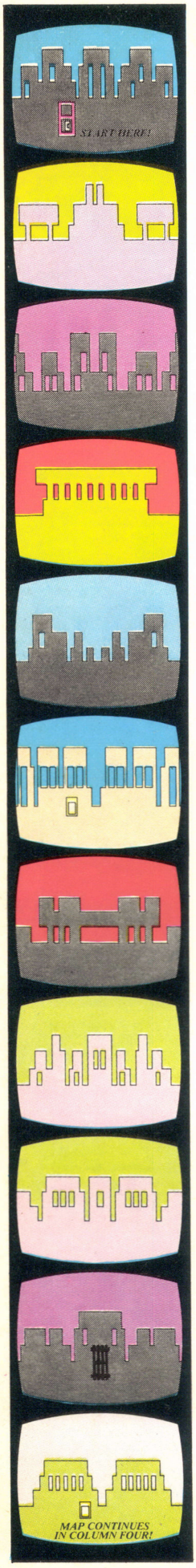
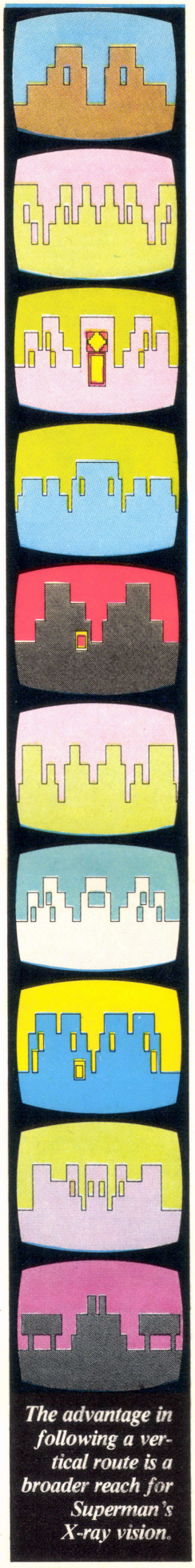


Continued from page 33

While you are flying about, you will encounter bits of the destroyed bridge. Whenever you find one of these, scoop it up and fly toward the nearest subway entrance. Deposit the bridge section in the orange subway; do not yet attempt to rebuild it. Replacing just one piece won't secure it to steel and glass canyon, thus making it a prime target for the helicopter to swoop down and steal. Repair the bridge only when you have all three pieces in the orange subway system. If a piece of *each* does not overlap the abyss, the bridge will not reconstruct. If you have to start juggling the sections around, you may accidentally step from the bottom of the bridge screen. Should this happen, you can't simply fly up and return to it. You must fly back up and enter the subway of "N" screen, heading back to the bridge through the orange system route.

The way to search the streets of Metropolis for villains is to fly up from screen to screen. Keep shifting Superman so that he faces left and right at some point in his ascent through each screen: using the X-ray vision, you will thus be able to keep an eye on three screens for every one through which you pass. Flying horizontally while on a search is obviously inefficient, since X-ray vision can't be used to see the screen above and below you. Looking ahead is clearly useless, since you'll be there in moments anyway.

When you're flying Superman around, stick to the *sides* of each screen. Zooming through the center, you may accidentally propel the Man of Steel into a subway, detouring him needlessly. Best to fly the fringes. It's also not a bad idea to carry Lois along. For all intents and purposes this makes Superman immune to kryptonite. He will have to waste a second or two putting her down when making an arrest, but far, far more time will be spent tracking down a kiss after being stricken by the lethal satellites.



The advantage in following a vertical route is a broader reach for Superman's X-ray vision.

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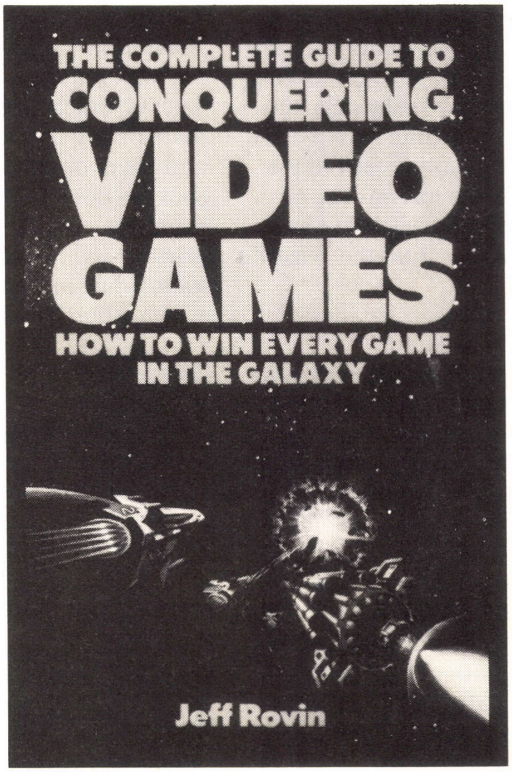

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MACMILLAN

You Read It Here First!

There's a lot of great software at your local videogame outlet, but there are also a lot of fizzles. We won't identify the lemons; they know who they are.

One problem with so many videogames is that they fail to innovate, or at least to license boldly. Naturally, it's easy for us to be smug about it: We're not investing millions of dollars in software. However, the *Videogaming Illustrated* staff *does* have a good idea what games and licenses players might enjoy. We know because we asked them. We came up with thirty game descriptions, and polled videogame players to determine their favorites. The result is the list presented below.

Each issue, *Videogaming Illustrated* will offer up new games. From current events to comic strips, no subject is off-limits—as indicated by the selection which follows.

The Wizard of Oz

One player is Dorothy, the other the Wicked Witch of the West. Following the Yellow Brick Road, Dorothy must reach the Emerald City before the Witch can stop her with fireballs, Monkey Men, poppies, or magic spells. If Dorothy really gets into trouble, she can whistle up a twister to whisk her to another part of the road—though she has no way of knowing whether it will bring her closer to or farther from the Wizard's domain.

Keystone Kops

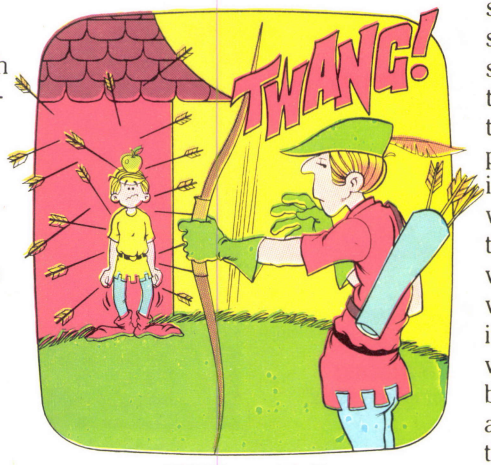
There are ten of the slapstick officers in your paddywagon, along with a thug they've captured. You are trying to drive the van from the scene of a crime to the station house. But the road is bumpy, slick, and full of potholes: the faster you drive, the more likely you are to see one of your cops bounce from the van. The object is to get the criminal to the station house in the best possible time, scoring extra points for each cop who arrives safely. If you lose the thug, you start again.

John Henry

You are the legendary American railroad worker, pitting your muscles against a machine. In each hand is a mallet: You must pound in spikes faster than the steam-powered hammer on the other track. You must beat the machine to various junctures where the tracks merge. If it is ahead of you, you can't hammer any spikes and the machine gets all the points. However, if you go too fast you are liable to miss spikes. The tracks pass through dark tunnels and up hills, which make visibility a problem and cause you to slow down, respectively.

Noah's Ark

Amidst a light drizzle, the wizened old prophet stands before his ark, the gangplank down, his family watching anxiously from the deck. Noah has a problem: There are ten animals scattered about the screen, each of which he must lead to its mate before the weather worsens and Shem or Japheth is forced to shut the door. Complicating Noah's problems are the birds which fly overhead—he has to jump up and grab them while he can—and the snakes which slither by quickly and evasively.



William Tell

You're staring at a target, a trembling lad poised before it. Upon his head is an apple, positioned right before the bullseye. Your joystick moves the bow left, right, up, and down. Engaging the action button freezes the bow in place; keeping it depressed while pulling the joystick toward you gives the bow its tension. When you're ready, release the action button and the arrow flies! Should the shaft pierce the quaking boy, there are two other victims in the wings. The object is to score the most points before skewering all of your assistants.

B.C.

A prehistoric race game based on the comic strip. B.C., on his unicycle, must race through various obstacles to reach Wiley's Bar. The impasses include a slow-moving dinosaur, army ants which constantly chew up and narrow the road, the fierce Hurricane Zelda, and road-hogging Dookey Birds.

Dune

As in the Frank Herbert novels, you are a Freman mining for Melange in the desert. Suddenly, a thousand-foot-long Sandworm comes slithering in your direction. Your associates scatter, leaving you to battle the monster yourself. Somewhere in the desert it is raining, which will prove fatal to the monster. The trick is to survive long enough to lead the worm to the storm. Scattered about the sands are electric weapons which will slow the beast, atomic weapons which can destroy one of its rings per weapon, and smaller worms which will do battle on your behalf. The trick is to get to these artifacts using a radar scanner above the main screen.

Santa Claus

Saint Nick is coming to town, though not as he would like. Rudolph and his team have been indulging in a bit too much grog with the elves at the North Pole and, as a result, he races from side to side of the screen at erratic speeds. Your job, as Santa, is to fling bags of toys at the rooftops below, trying to plant them squarely in the chimneys. The action button releases the bundles of happiness, the joystick helps you to compensate somewhat for speed, (left, right) and height (up, down). Ho, ho, ho!

His father's gone.
His mother's a memory.
His brother's movin' on.

But Tex McCormick
isn't giving in.

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